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The Journal
of the
Medical Association
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Volume XXX

January-December, 1941

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OBITUARY

Dr. Charles A. Greer, Oglethorpe; member; Louisville Medical College, Louisville, Ky., 1892; aged 68; died October 9, 1941. He was born and reared in Oglethorpe, Macon County, and attended the literary schools of that community during his boyhood. Later he worked as a clerk in a Marshallville drug store, then began the study of medicine. Dr. Greer began practice in Florida, then in Macon, later at Springfield and at Guyton; then returned to his native town, Oglethorpe, where he was an active practitioner until disabled. Dr. Greer served one term of three years as Councilor for the Third District, then served as Vice Councilor for two terms, six years, which ended in 1933. He was secretary-treasurer of the Third District Medical Society for many years and until his death; Macon County physician from the time the position was created until his death; Mayor of Oglethorpe for 28 years until his death; served in the lower and upper houses of the General Assembly of Georgia; steward and trustee of the Methodist church; also a member of F. & A. M. Surviving him are his widow. Funeral services were conducted at the Methodist church. Burial was in Oglethorpe cemetery.

Dr. William Henry Garrison, Clarkesville; member; Atlanta School of Medicine, Atlanta 1909; aged 58; died November 12, 1942, in a private hospital at Gainesville. He was a native of Banks County. After he graduated in medicine he served an internship at the Georgia Baptist Hospital, Atlanta. Dr. Garrison was physician and surgeon for the Lane Construction Company, Hardaway Contracting Company and the Georgia Power Company on development projects in Georgia and North Carolina. He began private practice in 1921 with Dr. J. K. Burns, Sr. Until his death he was associated in practice with his brother, Dr. David H. Garrison, Clarkesville. He was a good citizen and held in high esteem by many friends. Surviving him are his widow; five daughters, Mrs. Hal Porter, Charlotte, N. C.; Misses Martha, Peggy, Gloria and Don Adele Garrison; with two brothers and two grandchildren. Funeral services were held at the Clarkesville Baptist church. Burial was in South View cemetery.

Dr. John Wesley Story, Perry; member; Kentucky School of Medicine, Louisville, Ky., 1893; aged 70; died November 4, 1942. He was born in Houston County, graduated at the Butler High School, then studied medicine under Dr. J. P. Heard, Walden, before he entered Tulane University of Louisiana School of Medicine. Later he studied and graduated in medicine from the Kentucky School of Medicine. Dr. Story practiced in his native county and State for more than 40 years. He was thoroughly alert and always interested in the welfare of his patients. Dr. Story was a member of the Houston-Peach Counties Medical Society and the Beaver Creek Primitive Baptist Church. Surviving him are his widow; one daughter, Mrs. Mattie Story Woolfolk; two sons, John Story, Jr., and James Story. Interment was in the family burial ground at the Bryan Homestead.

Dr. James Bones Wright, Augusta; University of Georgia School of Medicine, Augusta, 1888; aged 83; died October 9, 1941, at the home of his daughter, Mrs. Alexander T. Murphey, Augusta. He was a native of Augusta, and the only surviving member of his class (1888), and the oldest physician in Augusta. Dr. Wright had a wonderful reputation for his traits of character, widely known and held in high esteem by hundreds of acquaintances. He retired in 1922 and made his home in Black Mountain, N. C., until two years ago, he went to Greenville, S. C., and made his home with his son, James Bones Wright, Jr. He was a faithful

and loyal member of the First Baptist church. Surviving him are his widow, four daughters, Mrs. A. T. Murphey, Miss Lucy Wright, Miss Emily Wright and Mrs. J. Russell Starnes; two sons, James Bones Wright and Dr. Peter B. Wright. Rev. R. Paul Caudill and Rev. L. Bert Joyner officiated at the funeral services conducted at the First Baptist church. Burial was in Summerville cemetery.

Dr. William Stuart Prather, Americus; member; University of Georgia School of Medicine, Augusta, 1895; aged 83; died November 12, 1941, at his home of heart disease. He began practice in Americus, was widely known in Sumter County and held in high esteem by hundreds of acquaintances. Dr. Prather was a successful practitioner and was charitable. No one was so poor that Dr. Prather refused to render efficient service to relieve him of any illness. He was a member of the Sumter County Medical Society and the First Baptist church. Surviving him are his widow, one daughter, Mrs. C. H. Hudson; two sons, E. M. and Stuart Prather. Dr. L. M. Polhill, Rev. J. A. Roundtree, Rev. Mack Anthony and Rev. J. A. Roundtree officiated at the funeral services conducted at the First Baptist church. Burial was in Oak Grove cemetery. Members of the Sumter County Medical Society were an honorary escort.

Dr. Warren Lee Hall, Nicholls; member; University of Georgia School of Medicine, Augusta, 1913; aged 52; died November 20, 1942, at a private hospital in Douglas. He was an active practitioner and farmer and owned large tracts of land. Dr. Hall served in the Medical Corps of the United States Army in France during the World War. He was a member of the Coffee County Medical Society, American Legion, F. & A. M., and the Nicholls Baptist church. Surviving him are his widow, one son, W. L. Hall, Jr., Nicholls; two daughters, Mrs. B. D. Davis and Miss Roselyn Hall, both of Nicholls. Funeral services were conducted at the Nicholls Baptist church. Burial was in the Hall cemetery.

Dr. Thomas Chason, Donalsonville; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1892; aged 69; died on November 24, 1941. He was born and reared in Donalsonville and practiced medicine there for almost fifty years. Dr. Chason studied in New York after he began practice and was a skilled surgeon. For many years he served as physician and surgeon at Chason's Hospital, Donalsonville. In addition to his practice of medicine he held large interests in farming lands and devoted the time left from practice to farming and public enterprises. Dr. Chason served in the State Senate from the Eighth Senatorial District. He was local surgeon for the Atlantic Coast Line Railroad and vice president of the Commercial Exchange Bank. Was a member of the Decatur-Seminole Counties Medical Society, Chattahoochee Valley Medical Association, American Medical Association, Lion's Club, F. & A. M., and the Presbyterian church. Rev. M. C. Liddell, Rev. Chester Campbell, and Rev. C. U. Leach officiated at the funeral services conducted at the First Presbyterian church. Surviving him are his widow, two sisters and one brother, Dr. Gordon Chason, Donalsonville. Burial was in Friendship cemetery at Donalsonville.

IN MEMORIAM

Dr. William Henry Garrison of Clarkesville, Ga., died Nov. 12, 1941, at the Downey Hospital, Gainesville, Ga., from coronary thrombosis, after an illness of nine days.

Dr. Garrison was a distinguished physician and surgeon, and was loved and highly esteemed by all who knew him.

He was forward and aggressive in educational matters and all other matters of public interest and welfare. He was an active deacon in the Baptish Church, and past president of the county medical society, and he will be greatly missed from our ranks.

He was born Nov. 23, 1883, in Banks County, Ga., a son of D. W. and Mary Keesler Garrison, and was 58 years of age at his death. He graduated from the Atlanta School of Medicine, now Emory University.

In 1921 he began practice of medicine at Clarkesville, being associated with the late Dr. J. K. Burns. Since 1935, his brother, Dr. D. H. Garrison, has been associated with him in general practice of medicine at Clarkesville.

Surviving are his wife, the former Miss Martha Bird of Columbus, to whom he was married on June 17, 1914, and the following daughters: Mrs. Hal Porter of Charlotte, N. C.; Misses Martha Bird, Peggie Bird, Gloria Jo, and Don Adele Garrison of Clarkesville; two brothers: Dr. D. H. Garrison of Clarkesville, and Fletcher Garrison of Cornelia, Ga.; four sisters: Mrs. F. V. James and Mrs. A. H. Cochran of Atlanta, Mrs. J. A. Ariail of Maysville, and Mrs. G. H. Fioror of Gainesville, Ga.

Funeral services were held November 12 from the Baptist Church where the body lay in state from nine to eleven o'clock, and interment was in the Southview Cemetery, Clarkesville.

The funeral was attended by a large gathering of friends and relatives. An honorary escort was composed of the Habersham Medical Society, en masse, and their wives.

WHEREAS, The Habersham County Medical Society has lost a valuable member and,

WHEREAS, Those who knew him and loved him have lost a good doctor, a friend, and a counselor, therefore

BE IT RESOLVED, That a copy of this sketch be spread upon the minutes of the Society and that a copy be sent the family and The Journal of the Medical Association of Georgia.

Habersham County Medical Society.

NEWS ITEMS

The Third District Medical Society met in the Dawson Municipal Club, Dawson, November 19. Hon. Henry Wilkinson, mayor of Dawson, made the Address of Welcome; Dr. Francis B. Blackmar, Columbus, Response to the Address of Welcome. Titles of papers

on the program consisted of *Conservative Treatment of Peripheral Vascular Disease* by Dr. D. Henry Poer, Atlanta; discussed by Dr. R. C. Pendergrass, Americus. *Deep Infections of the Neck*, Dr. H. K. Herrin, Columbus; discussed by Dr. Francis B. Blackmar, Columbus. *Coronary Thrombosis*, Dr. L. R. Massengale, Lumpkin; discussed by Dr. G. J. Dillard. Columbus. Memorial services were held for the late Dr. Chas. A. Greer, Oglethorpe. New officers elected are: Dr. W. G. Elliott, Cuthbert, president; Dr. F. B. Schley, Columbus, vice president; Dr. W. P. Jordan, Columbus, secretary-treasurer.

DR. B. E. COLLINS, Waycross, and Dr. T. J. Floyd, Jr., Griffin, have been elected to fellowship in the American College of Surgeons.

DR. H. D. BROWN, Summerville, has been re-elected Chattooga County health officer. He has served as county physician for a number of years.

THE MEETING OF THE STAFF OF THE GEORGIA BAPTIST HOSPITAL, Atlanta, was held on November 18. Dr. Joseph Yampolsky conducted a conference on *Clinico-Pathological* conditions. Dr. T. C. Davison was in charge of *Case Discussions*.

SANTIAGO, CHILI, November 1.—Dr. Joseph Francis McCarthy, Director of the Department of Urology of the New York Polyclinic Medical School and Hospital, received an unusual honor here recently when a new wing in the Barros Luco Hospital was named for him. The entire cost of construction of the wing and equipment was covered by an endowment by Abraham Atala, a Syrian merchant. Dr. Edward Abud, a Syrio-Chilean pupil of Dr. McCarthy, presided, and the ceremony was attended by President Pedro Aguirre Cerda and Claude E. Bowers, American Ambassador, who said he felt the entire American medical profession has been honored.

DR. ROY R. KRACKE, Professor of Pathology at Emory University School of Medicine, addresed the Tri-County Medical Society of Vicksburg, Miss., on the evening of December 1. On the evening of December 2, he delivered the Annual Chaille Memorial address before the New Orleans Parish Medical Society and on December 3, addressed the medical students of Tulane University. These addresses dealt with various phases of hematology.

DR. FRANCIS P. PARKER, Emory University, was guest speaker at a meeting of the Randolph-Macon Alumnae Club on November 8.

DR. AMEY CHAPPELL announces the removal of her office to 11 Seventeenth Street, N. E., Atlanta.

DR. H. L. DISMUKE, Ocilla, has been elected to fellowship in the American College of Surgeons.

DR. GEO. A. WARD, Elberton, has been appointed a member of the State Board of Medical Examiners by Governor Talmadge.

THE WARE COUNTY MEDICAL SOCIETY met on December 3 at the Golf Club. Dr. W. F. Reavis and Dr. L. W. Pierce, Waycross, were hosts at dinner. After the business session movie films were shown followed by singing and dancing.

THE BIBB COUNTY MEDICAL SOCIETY met in Ridley Hall, Macon, December 2.

DR. V. P. SYDENSTRICKER, Augusta, spoke on *Deficiency Diseases* at the Church School Building on the Emory University Campus, December 4. The lecture was sponsored by the Medical Students Activities Council.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on November 25. Dr. Robert B. McIver, Jacksonville, Florida, read a paper entitled, *Surgical Treatment of Non-Calculous Hydronephrosis—Illustrated with Lantern Slides and a Color Motion Picture.*

DR. M. L. B. CLARKE, Atlanta, has been appointed commanding officer of the Medical Corps of the State Defense Corps.

THE ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL ASSOCIATIONS, sponsored by the American Medical Association, was held in Chicago on November 14-15. Representatives from Georgia included, Dr. Allen H. Bunce, Dr. W. A. Selman, Dr. C. W. Roberts, Dr. Edgar H. Greene and Dr. Edgar D. Shanks, all of Atlanta.

U.S.P. CONVENTION TO RECONVENE IN CLEVELAND, APRIL 1942

The Board of Trustees of the United States Pharmacopoeial Convention announces that the adjourned meeting of the U.S.P. Convention will reconvene at the Statler Hotel, Cleveland, Ohio, on Tuesday, April 7, 1942.

This meeting is in accordance with the instructions given by the 1940 Convention, "—to meet at the call of the Board of Trustees to receive the report of the Committee on Constitution and By-laws—."

The Committee on Constitution and By-laws, consisting of nine voting members, four being physicians, four pharmacists and one a representative of a governmental agency, is as follows:

Allen H. Bunce, M.D., Atlanta, Georgia, Chairman.
W. F. Rudd, Richmond, Virginia.
P. H. Costello, Cooperstown, North Dakota.
Carson P. Frailey, Washington, D. C.
W. A. Groat, M.D., Syracuse, New York.
Theodore G. Klumpp, Chicago, Illinois.
C. H. Rogers, Minneapolis, Minnesota.
T. Sollman, M.D., Cleveland, Ohio
H. C. Wood, M.D., Philadelphia, Pennsylvania.

In addition the following served as ex-officio members: Cary Eggleston, M.D., New York, N. Y., and L. E. Warren, Washington, D. C., President and Secretary of the Convention respectively, and E. Fullerton Cook, Philadelphia, Pa., Chairman of the Revision Committee. The Committee has recently made its report which is now before the Board of Trustees. It will be made public within a short time, so that those interested may have ample time to study the newly proposed Constitution and By-laws.

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EVALUATION OF THE DIAGNOSIS AND TREATMENT OF VARICOSE VEINS

CHARLES E. RUSHIN, M.D.
Atlanta

In the past thirteen years the treatment of varicose veins has undergone a great change. Since the publication of McPheeters'[1] paper in *The Journal of the American Medical Association* in 1927, much has been written about the injection treatment of varicose veins. In September, 1927, I began injecting the veins of dogs with 40 per cent sodium salicylate, excising specimens of veins and having photomicrographs made for study. At that time the varicose vein clinic at the Emory Unit of Grady Hospital was established. We average 40 patients a week in the clinic. Combined with private patients this gives me an opportunity to study varicose veins and their complications in a large number of patients. Up to the present time I have examined and treated 4,000 patients representing over 60,000 injections. There have been no deaths and no cases of embolism. Three patients have had allergic reactions, two severe and one mild. Three hundred have been ligated either at the sapheno-femoral or sapheno-popliteal junctions. The ages of these patients have ranged from 6 to 90 years.

Correct diagnosis of the varicosities by various tests is of paramount importance. The patient should be stripped from the waist down and examined standing. Palpation aids in determining the edema, tenseness of the veins and brawny induration. Percussion helps in locating the veins in obese patients and also the incompetency of the valves. It has been said that a percussion wave can be elicited in the normal vein but it is not so noticeable as it is in a varicose vein. After the examination in the standing position, have the patient lie down perfectly relaxed. Then have him cough real hard and if the terminal valve in the great saphenous vein is incompetent a thrill can be palpated at the sapheno-femoral junction. Next raise the leg to a 90 degree angle in order to let the blood drain out of the great saphenous vein into the femoral vein, have the patient cough again and frequently the blood will fill the vein up to the level of the knee. This can be easily seen in large varicose veins. This test has been demonstrated to the students many times in our clinic. The Trendelenburg test is one of the most useful tests for the competency of the valves. With the leg elevated to drain the superficial veins and the patient relaxed, fasten a tourniquet around the upper third of the thigh, then let the patient stand quickly. If the valves in the communicating vessels are competent the veins will not fill within 20-30 seconds. But if those valves are incompetent the veins will fill immediately. When the vein below the tourniquet does not fill quickly, the tourniquet is removed. If the blood rushes down from the femoral vein it is a sign that the terminal valve is incompetent and there is a vicious circle in the great saphenous vein. By using a number of tourniquets the level of the incompetent communicating vessel may be determined. Ochsner and Mahorner[2] have modified Perthes' test and interpreted it in a different manner. The patient is observed standing and then walking. A tourniquet is applied in the upper third of the thigh and the patient walks about using his legs vigorously. If the vein becomes smaller and less tense it indicates that the communicating valves are competent and also the

Read before the Medical Association of Georgia, Savannah, April 25, 1940.

Fig. 1.
Congenital varicose veins. L. M., aged 6. Soon after birth his mother discovered the enlarged veins on his left leg. He had a positive Trendelenberg test. The entire great saphenous vein was excised; later the tributaries were injected. No valves were found in the excised vein.

Fig. 2
Shows the results after treatment was completed. He has developed normally, and is now eleven years old.

deep veins are patent. If the veins do not decrease in size the tourniquet is put on at the middle of the thigh and the patient instructed to exercise. If there is a reduction in the size of the veins, the test indicates that there is a communicating vessel with incompetent valves between the location of the two tourniquets. This test is very satisfactory in some patients but in others the Trendelenburg test is more instructive. The bandage test is most useful for testing the patency of the deep veins. Bandage the leg from the toes to the knee and have the patient walk around for 30 minutes. If the deep veins are occluded there will be great pain and the patient will be relieved when the bandage is removed. If the deep veins are patent he will be more comfortable with the bandage.

Treatment: Patients with hyperthyroidism, acute respiratory infections, diabetes, and coronary diseases should not be treated until their illnesses have improved. Those who have thrombo-angiitis obliterans, Raynaud's or arteriosclerosis of the vessels in the legs should not have any treatment to the varicose veins at all. To test the legs for thrombo-angiitis obliterans (Berger's disease) have the patient lie down on the table, raise the legs and move the feet vigorously. If there is marked pallor of the plantar surfaces the arteries are partially occluded. The anterior and posterior tibial arteries should also be palpated. One death has been reported in a patient who had hyperthyroidism; after injection she developed thyrotoxicosis[3] and died.

Age is no contraindication to treatment if the patient is in fairly good physical condition. I did a bilateral ligation of the great saphenous veins and later did numerous injections on a physician's father who is seventy-seven years old. He withstood the operations and treatments as well as a much younger person. Four years ago I examined a six-year-old boy who had a congenital varicosity of the left great saphenous vein. The leg was slightly larger than the normal leg. The entire great saphenous vein was removed after making an incision from the fossa ovalis to within 4 inches of the ankle. Twenty-three tributaries and communicating veins were ligated. The vein was opened and the walls were as smooth as glass. No valves were ever developed. Later the tributaries were sclerosed. The patient was relieved of all cramps and heaviness in the affected leg. He has developed normally and there is no increase in the length of the leg. Recently a white man aged 26 was examined who has a congenital varicosity in one leg. He has had numerous attacks of phlebitis and cellulitis in the affected leg. Pressure bandages are being worn, and as soon as his condition permits he will be operated on.

A white male aged 24 who had bilateral phlebitis in the deep veins following an operation was examined. He had positive Trendelenburg tests in both great saphenous veins and both small saphenous veins. Small ulcers had developed on both ankles. Under novocain anesthesia both great saphenous veins were ligated with their tributaries at the sapheno-femoral junctions and both small saphenous veins and their tributaries were ligated at the sapheno-popliteal junctions. Later all of the varicose veins were sclerosed. He is now entirely well and to look at his legs no one would ever realize he had once had varicose veins.

A white female aged 47 complained of pain in her hip. She was in bed 16 weeks on account of the pain and cramps. The

right great saphenous vein was moderately enlarged. There was not and had not been any inflammation. The external superficial femoral vein was enormously enlarged, just before it entered the great saphenous vein at the fossa ovalis. The sacculation was 4 cm. in diameter. The great saphenous vein was ligated and the sacculated part of the external superficial femoral excised. After the varicose veins were sclerosed the patient was completely relieved of all discomfort. In some clinics the veins are injected with the patient standing. For nearly 13 years I have injected all patients in the recumbent position. When the patient is lying down, the veins are almost empty of blood, the direction of flow of the solution can be controlled, the sclerosing solution is not diluted with a large amount of blood and there is less danger of leakage of the solution and blood around the needle. These observations have been made by injecting Diodrast and observing it with the fluoroscope.

The following solutions have been used: invert sugar, dextrose and saline, sodium salicylate, sodium chloride, sylnasol, sodium morrhuate, monolate, soricin solution, quinine and urethrane, and moruquin. In my experience, sodium morrhuate 5 per cent, monolate, and soricin solution are the most satisfactory. However, a patient may be or may become allergic to any of these solutions. Any patient who has hay fever, asthma or urticaria should be watched for an allergic reatcion. Never use more than 0.5 cc. of sclerosing solution at the first visit and keep a tourniquet on for 10 minutes before letting the patient get off the table. If sneezing or urticaria develops give epinephrine subcutaneously. If a severe reaction occurs give the epinephrine intravenously, then epinephrine in oil intramuscularly for sustained effect. Any patient who has had injections and a lapse of a few months should not be given the same solution unless a careful test is made. These patients frequently develop an allergy to the solution as they do with serums. I have seen two nitritoid reactions occur after the use of sodium morrhuate. One death has occurred after using monolate.

Fig. 3

Congenital varicose veins. W. H. B., aged 32. Had so much blood gravitate to his leg when standing until he fainted if not allowed to lie down. The leg was enormously enlarged, was spongy, purple and contained huge lakes of blood. He had a positive Trendelenberg test. The great saphenous vein and its tributaries were ligated at the sapheno-femoral junction. The veins are being injected but the treatment has not been completed.

This was reported by Shelley[4] in *The Journal* of the American Medical Association.

All saphenous veins should be ligated with their tributaries at the sapheno-femoral or sapheno-popliteal junction when the Trendelenburg test is positive. When the communicating valves are incompetent the communicating vessels should be ligated.

A colored female had positive Trendelenburg tests in both great saphenous veins. She also had varicose ulcers. The right great saphenous vein and the tributaries were ligated at the sapheno-femoral junction. The left great saphenous vein was ligated 2.5 cm. below the sapheno-femoral junction. All varicosities were sclerosed. The ulcers healed. Three and one-half years later she returned for examination. The right leg remained well, but there was a recurrence of the varicose veins and ulcer in the left leg. The pressure of the blood in the saphenous stump had dilated the tributaries, a collateral circulation developed and the veins had recanalized.

All ligations should be done in a hospital under strict surgical aseptic technic, using novocain anesthesia. The patient should get up and walk within 30 minutes after the operation has been completed. He should walk often during the day and not be allowed to remain in bed. A longitudinal incision is made, the vein is freed of the sheath, clamped with two clamps and divided. Blunt dissection is better when stripping the vein of its sheath. The upper end of the vein is dissected free of the sheath to the femoral vein. The external pudendal,

Fig. 4

Varicose Ulcers.
J. J., colored male, aged 67. This view shows two large ulcers. He has two ulcers on the opposite side of his legs as large as the ones shown above. The ulcers have been present since 1905. They were healed with Unna's paste boots.

Fig. 5

The same patient as shown in figure 4 after the fibrous tissue and fascia had been excised, and split grafts applied. Skin grafting was necessary to prevent the scar tissue from breaking down. This patient has remained well for three years.

superficial epigastric, external superficial circumflex and external and internal superficial femoral veins are ligated. The stump of the great saphenous vein is transfixed with No. 1 silk and ligated and a second ligature is usually tied around the stump of the vein proximal to the transfixed ligature. The sclerosing solution may be injected into the distal end of the vein, but great care should be used not to let any of the sclerosing fluid leak into the wound. I believe it is better to defer injection until a later date or inject the vein above the knee. Subsequent injections are given two or three times a week, until all of the varicose veins are sclerosed. A bandage should be worn for two or three months. Examinations should be done every three months for one year after treatment has been completed.

By careful attention to every detail and thorough sclerosing of all varicosities the results should be good in all patients.

In conclusion I should like to stress the following:

1. Careful examination to determine the competency of the valves.
2. Test the patient's reaction to the sclerosing solution before using it.
3. Where ligation is indicated, ligate the saphenous at the junction of the saphenous with the deep vein, also ligate the tributaries.
4. Always inject the sclerosing solution with the patient in the recumbent position.
5. Bandage the leg and keep it bandaged for three months or more after the last treatment.
6. Never inject the sclerosing solution outside the vein.

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DISCUSSION ON PAPER OF DR. CHAS. E. RUSHIN

Dr. C. K. Wall (Thomasville): Dr. Rushin is to be congratulated on the scope and extent of work on varicose veins and a mortality of zero is nothing to be sneezed at. It is remarkable how many patients of this type we all see, whether in general practice or special work and these people who suffer from varicose veins, some of them, are positively pitiful to see. They go from year to year with makeshift remedies and get no definite relief. It is a pity this treatment is not more widely accepted and applied by the profession. I think we can do no better than to bring common, everyday ailments to the attention of the society and emphasize that definite improvement can be received from the right kind of treatment. It is easy, simple and safe as described by Dr. Rushin. A mortality of nothing in 4,000 cases speaks for itself. The operation, as it is described by Dr. Rushin, is comparatively easy and the convalescence is ambulatory. The patient gets up thirty minutes after treatment and stays up off and on during the day. Most people have a horror of having any operation, but if they could realize how easy and simple this sclerosis operation is and how little they are incapacitated afterward, it would bring a great many people to realize that it is a mild treatment and would relieve them of a life burden.

I was impressed at the Philadelphia American College of Surgeons' meeting to see a movie of the Alton Ochsner operation. Davis and Geck made a movie of the operation that was very illustrative and interesting. Any county society or any hospital staff may get the movie for the asking; all they need do is to pay the express and send it back. It shows the details of the operation described by Dr. Rushin. I was impressed with the way they sclerosed the veins from the ankle up. They cut the vein and took a ureteral catheter and inserted it into the lower end about the length of the catheter. A ligature was tied around the vein and the catheter and 20 to 30 cc. of sclerosing solution injected, gradually withdrawing the catheter and filling up the large varicose vein and incompetent valves and tied it off. I have used that method on several patients since I saw it at the meeting

in Philadelphi and I have been delighted to see old chronic ulcers healed.

Dr. R. C. Franklin (Swainsboro): I have listened carefully to Dr. Rushin's paper and it is most interesting and instructive. He has well illustrated the diagnosis and treatment of varicose veins. His report covers such a large series of cases and his results compare well with other scientific reports.

The treatment of varicose veins, as you have seen, has been almost completely revolutionized since injections began, especially ligations and injections so beautifully reported and illustrated to us. We should enter into this treatment of varicose veins only after a thorough and painstaking diagnosis is made of the sufficiency or insufficiency of valves. Each patient should be thoroughly individualized as well. Of course that includes the inspection examination as well as the various tests as he has so beautifully brought out and explained to us in making the diagnosis. Our per cent of cures is based to a great extent on this.

I think he might have gone into it a little bit from the conservative standpoint, especially since we can't lead all of our patients to the operative form of treatment. In other words, if you take an interest in your patients to the extent of pleasing them and giving them a degree of relief by conservative treatment, then as a rule the permanent treatment will follow in a majority of cases. I think that is one of the points to be discussed and to be considered seriously as there are a number of these cases that go along with ordinary remedies or no remedies without any relief or scarcely any relief.

Another condition that he might have taken up, and one that is of extreme interest to me, is the treatment of varicose ulcers, in a little more detail.

Thrombo-angiitis, cellulitis, lymphangitis, phlebitis with the new treatment, we might call it, of injection in the lumbar chain, of novocain, is proving to be somewhat spectacular in result. That has been my experience up to this time, though I have used it only a few times.

We have to have our attention called to these things occasionally to remind us of just what we are letting slip by each day and go for the ordinary minor things in order to try to get the needs of the patients, the basic condition.

Dr. Chas. E. Rushin (Atlanta): I disagree with Dr. Wall when he says the procedure is simple. Of course it is not difficult to ligate the great saphenous vein some distance below the sapheno-femoral junction, but when the vein is properly ligated with the tributaries where it joins the femoral it requires an hour or longer of careful dissection. To leave a stump of the saphenous vein makes it more likely that an embolus will break loose. Passing a catheter down the vein, as advocated by one author, is unnecessary; and I believe the amount of sclerosing solution necessary to sclerose the vein would cause a violent reaction.

In answer to Dr. Franklin's question about thrombophlebitis, when it involves a superficial vein, I have had the best results by applying a firm bandage from the toes to the knee, then let the patient take a moderate amount of exercise.

I have been treating thrombophlebitis of the deep veins by injecting the lumbar sympathetic ganglions with novocain as suggested by Ochsner. The results are spectacular. Many patients with varicose veins, ulcers, edema and brawny induration give a history of a previous thrombophlebitis. Today with the proper treatment these severe complications can be prevented.

Varicose veins are one of the most chronic of all diseases, and a cure can be obtained only by a careful examination and knowledge of the disease and also by following every minute detail of the treatment. A careful follow-up for one year is also essential.

TUBERCULOSIS IN CHILDREN

Robert F. Mikell, M.D.
C. M. Sharp, M.D.
Alto

Tuberculosis in children is usually a primary infection as distinguished from the so-called secondary or reinfection type which is found in an individual who has been previously sensitized to the products of the tubercle bacillus. Tuberculosis in children, therefore, largely resolves itself into a discussion of the characteristics of body by various routes: the lungs, the alimentary canal, the skin, and the blood a primary tuberculous process.

The tubercle bacillus can enter the blood stream. But for practical purposes we can regard the principal portal of entry as the lungs, as, according to Wallgren, about 90 per cent of all tuberculosis in children is the result of pulmonary infection. The nasopharyngeal cavity accounts for the original infection in a certain small percentage of cases and here it is practically always the tonsils and adenoids which are the seat of infection. Since the practically complete elimination of bovine tuberculosis in this country within the past few years, infection through the alimentary canal has ceased to be the problem it once was. Infection through the skin or directly into the blood stream is so rare as to be practically nonexistent.

By far the most frequent source of infection is contact or close association with some member of the household, most often a parent but occasionally a nurse or servant.

From the State Tuberculosis Sanatorium, Alto.

Droplets of sputum sprayed by coughing, sneezing or in speech, may be inhaled directly or may become part of the dust in the room and settle on furniture, toys, bedclothes, etc., to be later introduced into the child's mouth by his hands, or to be lifted again into the atmosphere of the room by means of air currents, dusting, shaking, etc.

The individual responsible for transmission of the disease may be known to be suffering from active tuberculosis but often the appearance of the disease in a child is the first warning of the illness in an adult. As Park has so aptly expressed it: "There is more than one way of telling whether or not an adult has an open tuberculous lesion; one can find the bacilli in his sputum, or one can find the infection in his baby." In practically all instances where a young child is found to be infected, careful questioning will elicit some member of the household who has a chronic cough or who has not felt up to par for some time, and who will on x-ray examination show a tuberculous lesion. It is particularly important that this fact be kept in mind in dealing with tuberculosis in children and that a careful search be made for the infecting individual in each household in order to break the contact and safeguard the other children in the family from a similar fate.

After the original infection has taken place, the organisms set up a characteristic lesion consisting of (1) the primary focus in the lung, (2) a tuberculous lymphangitis extending to the regional lymph nodes, followed by (3) a lymphadenitis of these nodes with a tendency towards caseation; a triad which is known as the primary complex. As a rule there is only one primary complex, although occasionally there may be multiple foci. Ghon and Winternitz found two or more foci in only 4.6 per cent of 606 cases examined pathologically. It is felt by most authorities that the explanation for this lies in the development of allergy to the primary focus, which prevents the development of other foci despite the continued inhalation of tubercle bacilli.

It is to be remembered that the pathologic process may be far more conspicuous in the hilar glands than in the pulmonary tissue where the infection originated; as a matter of fact in some patients the process in the lung itself may be so small as to pass unnoticed on an x-ray, whereas the hilar glands may show considerable enlargement and even varying degrees of caseation. This is in contradistinction to the reinfection type of tuberculosis with its slowly progressive lesion which tends to become encapsulated with fibrous tissue and shows little or no evidence of glandular involvement.

In a large percentage of children, both infants and older children, the onset of the infection passes unnoticed, since the early symptoms, and there frequently are none, are subclinical and even x-ray films, sedimentation rates, skin tests, etc., give no evidence of the disease process for a period varying from three to thirteen weeks. As a rule, however, the tuberculin test becomes positive in about five to seven weeks and shortly afterwards some enlargement of the mediastinal lymph nodes or some pulmonary infiltration can be detected by x-ray studies.

It is at about this time that the first symptoms begin to appear. As a rule, the first one is fever—the so-called "initial fever" described by Robert Koch. This often lasts only a few days and is so mild that it is either unnoticed altogether or is thought by the parents to be merely "one of those things which children have" and is quickly forgotten. Often it is considered to be only a slight cold. However, if the child is carefully watched subsequently, it will be noted that he begins to develop minor constitutional symptoms: irritability, slight malaise, anorexia, a tendency to tire easily, and perhaps minor digestive disturbances. If the child is old enough to complain of subjective symptoms it will be noted that he will have frequent mild headaches or may complain of pain in various parts of the body, often localized to the large joints which occasionally lead one to suspect the so-called "growing pains" seen so frequently in rheumatic fever.

In these early cases cough is usually not a prominent symptom and is frequently ab-

sent altogether. Neither is loss of weight a constant complaint; in fact, some children will gain weight normally during the course of a primary infection, or they may even be overweight.

With a spreading or rapidly developing process, however, the symptoms become more pronounced. There may be an irregular fever for long periods of time. A continued temperature following diseases such as measles or whooping cough should always make one suspicious of tuberculosis until it is proven to be due to some other cause. Along with this fluctuating fever usually occurs pallor, weakness, loss of weight, irritability, and cough. The cough, even here, is often not conspicuous and it is to be remembered that, even though a young child's cough may be severe, he will not cough up much sputum for it is swallowed and goes into the stomach. Occasionally there is a paroxysmal, brassy cough which is due to the pressure of enlarged mediastinal glands. Hemoptysis in children is very rare. As the involvement progresses the respiration becomes more rapid, dyspnea may occur and there will now be found evidence of a serious involvement by x-ray.

The occurrence of either erythema nodosum or phlyctenular conjunctivitis in a child should always make one suspicious of the presence of a tuberculous process. Neither of these is of itself tuberculous and it may occur in individuals who are free of tuberculosis, but the frequency with which these conditions occur in tuberculous children has led many observers to regard them as an allergic response to the products of the tubercle bacillus. These manifestations may occur during the invasive period of the disease or may occur subsequently.

Strangely enough even though several or all of these symptoms may be present and the child may show enlarged mediastinal glands with a considerable amount of pulmonary consolidation by x-ray, the physical signs in the involved lung are often negligible or even absent. It is to be emphasized that a characteristic feature of primary pulmonary tuberculosis is that it gives few if any physical signs and it is the exception rather than the rule that the reaction in the lung is so marked that it is physically demonstrable. When physical signs are present they are most often found over an area of pneumonic consolidation and consist of a slight suppression of the breath sounds and possibly a small area of slight dullness—signs which even experts in physical diagnosis often miss. Rales are quite rare except in gross involvements. In examining these children it is very helpful to make a direct comparison of both lungs in order to pick up these minimal variations. Even here one is often mistaken as to the involved side, although recognizing that signs over one lung differ from those over the opposite lung.

We wish to repeat that it is by no means unusual for the physical examination to be entirely negative while the x-ray findings indicate the presence of extensive infiltration; in fact, surprises like this are met with over and over again in a department of tuberculous children. The disease would not, in most cases, be localized clinically were it not for the roentgenologic examination at our disposal.

Due to the paucity of physical signs in primary tuberculosis we must turn to other diagnostic procedures for aid. Of these, probably the most useful, as well as the simplest, is the tuberculin skin test. There are several methods of carrying out this test. Of these, the intracutaneous or Mantoux test is probably the most widely used at the present time. With this test a small amount of tuberculin (O.T.) diluted with saline is injected into the topmost layers of the skin. The volume injected is 0.01 cc., and the dose most commonly used is 0.01 mg. (0.1 cc. of a 1:10,000 dilution) for first dose. If negative, 0.1 mg. is administered, and if this is negative, it is increased to 1.0 mg. There is at present on the market a commercial product known as P.P.D. (purified protein derivative) which is quite satisfactory and which comes in two strengths. In using this product it is advisable to use the weaker solution for the original test, and if this is negative the stronger dilution can then be tried. The technic of the test is as follows: a small

skin test needle is used and, after preparatory cleansing of the flexor surface of the forearm, the injection is made within and not beneath the skin. When properly done a small pale bleb is produced which resembles an insect bite. A positive reaction will manifest itself after 48 hours by an area of redness and induration varying from a few millimeters to three or four centimeters which appears at the site of injection. Occasionally the reaction may be severe enough to cause an area of necrosis.

The relatively recent development of the patch test which consists of placing a piece of gauze containing dried tuberculin in contact with the skin and holding it in place by adhesive tape gives promise of being as reliable as are the other methods and is much simpler and more agreeable to children as it involves the use of no needles. It, like the Mantoux test, is read in 48 hours.

A positive tuberculin test indicates the presence of allergy to the products of the tubercle bacillus and tells us that tuberculous infection has occurred at some previous time in a positive reactor. Although this allergy may fluctuate under a variety of conditions, as a rule it hardly ever disappears completely once it has been established. Because of this fact we have come to attach more significance to a negative tuberculin than to a positive one, for a negative reaction, particularly if the dosage has been carried up to 1.0 mg. or more, is, except in rare instances, sufficient to rule out tuberculosis. On the other hand, a positive reaction with no other clinical evidence of tuberculosis is of little practical import except in infants and very young children. But the younger the child the more likely is a positive test to be associated with an active process.

Another aid in the diagnosis of primary tuberculosis is the increased rate of sedimentation of the red blood cells which usually occurs with an active process. The introduction of the micro method of performing this test has greatly simplified the technic of its use in children. If this test is to be of value in judging a tuberculous process it is essential that other causes producing an increased rate are excluded. It is a known fact that complicating diseases such as upper respiratory infection or febrile illnesses have an effect on the sedimentation rate just as these diseases may influence the temperature of a patient. When conclusions are drawn from the rate of the blood sedimentation test in tuberculosis it is taken for granted that these other factors affecting the rate are excluded, as it must be kept in mind that this test is merely an aid in the diagnosis, and that it is not a specific diagnostic test but must be correlated with other findings in order to be of value.

As already pointed out, children with tuberculosis seldom raise any sputum, consequently they cannot be examined for tubercle bacilli as easily as can adults. However, in cases with an open lesion the organisms can often be recovered by withdrawing the swallowed bronchial secretion from the stomach by means of a stomach tube and examining it bacteriologically. The technic is simple. The fasting stomach is washed out with approximately 100 cc. of either plain water or a 2 per cent solution of sodium bicarbonate. The washings may then be centrifuged directly or after treating with 10 per cent of their volume with 40 per cent sodium hydroxide and placing in an incubator for solution of mucus before centrifuging. The centrifuging throws down the organisms which can then be demonstrated in the sediment in a stained smear.

The white blood cell count in primary tuberculosis will often be found to show a moderate leukocytosis, but outside of this the test is of limited practical value.

There are few diseases in internal medicine in which we are so dependent for our diagnosis upon the roentgenologic examination as we are in primary pulmonary tuberculosis. We could not at present do without it and to it we chiefly owe our present knowledge of the disease. Despite its great usefulness it is not without its limitations for it is often difficult to decide for certain what is pathologic and what is normal, and there are, of course, borderline cases where even those very familiar with x-ray diagnosis find it impossible to make a decision.

There is nothing pathognomonic in the

x-ray picture of primary tuberculosis except for those cases of miliary tuberculosis which are characteristic and can hardly be mistaken for any other condition and for those which show deposition of calcium in the lungs or glands. Another instance where the x-ray may be typical is in those cases where the changes involve the regional glands at the hilum to a greater extent than the pulmonary parenchyma itself. These swollen glands are not so prominent in other forms of the disease.

Aside from these exceptions, intrathoracic primary tuberculosis is roentgenologically non-specific, and, even in these so-called cases mentioned above, the picture can often be confused with other conditions. Bronchopneumonias and croupous pneumonias often start in the hilar regions, producing an x-ray shadow which gives the impression of having been caused by swelling of the hilar glands. Such a pneumonic process may perfectly simulate a primary tuberculosis. In older subjects one may see glandular enlargements due to lymphosarcoma or Hodgkin's disease which are similar to those produced by tuberculosis. Other conditions which may produce an x-ray picture simulating that seen in tuberculosis are empyema, chronic and unresolved pneumonia, lung abscess, and reactions due to foreign bodies in the lung. These diseases often give a most confusing picture which requires other specific diagnostic methods for differentiation.

It is often only with the greatest difficulty that one is able to distinguish slight degrees of tuberculosis infiltration at the hilum from the normal root shadows which become more prominent as the child grows older. These root shadows and increased bronchial markings may be very striking in patients who suffer from asthma or bronchitis. It is in these cases particularly that the experience gained from reading many tuberculous as well as non-tuberculous x-ray films is of such great value.

The presence of calcium in either the parenchyma of the lung or in the mediastinal lymph nodes is usually pathognomonic of a tuberculous process which has undergone some healing, for tuberculosis is the principal disease of the lungs in which calcium is laid down.

After having made a diagnosis of primary pulmonary tuberculosis in a child, the next question which arises is: how will this infection progress in the future? Unfortunately, we cannot give a definite answer to this question. However, if the child is not too young, we can give a good prognosis as to the healing of the primary infection. We know that a primary tuberculosis in a child between the ages of five or six and puberty is a relatively benign affection, whereas in infants and younger children, the infection is considerably more dangerous. This fact is borne out by a comparison of the difference in mortality rates within the following age groups as given by Wallgren: the mortality rate for 39 children between birth and 1 year was 35.9 per cent, for 64 children from 1 to 3 years 15.6 per cent, for 225 between 3 and 7 years, 4.4 per cent, while for 125 between 7 and 16 it was only 0.8 per cent, giving an over all mortality of 7.7 per cent for 453 of all ages up to 16 years.

The time of onset of the disease must be given consideration in the prognosis, for its dangers are especially prevalent shortly after the manifestation of the disease. It is during this interval that the inevitably fatal miliary type and meningitis usually occur. The longer the time elapsing after that stage, the more favorable the prognosis.

In the past it has been felt that the general physical condition of the child when he is infected will play a predominant role in the prognosis. However, it is probable that oftentimes far too much emphasis is placed on this factor and too little attention paid to other manifestations of activity of the process. The radiographic findings provide us with some help but they alone do not determine the prognosis for we may see extensive radiologic changes in the lung in a case with a good prognosis.

In short, we may say that no one isolated clinical or laboratory test can determine the outcome of a primary tuberculous infection. Rather we must correlate and inte-

grate all of our findings over a period of time in order to best judge the general effect of the disease upon the individual child.

When the child has once passed the active stage of his primary tuberculosis and the x-ray shows beginning calcification of the primary complex, the infection can, in most cases, be said to be under control. For the laying down of calcium is proof that some healing is taking place and we can look upon its presence as a most welcome sign.

The treatment of primary tuberculosis is non-specific for we have no specific therapy. Like all other inflammatory processes tuberculosis is favorably affected by allowing the diseased part or organ to rest. This means as applied to pulmonary tuberculosis, that respiration must not be strained. The less bodily movement, the more rest for the lungs and rest in bed presupposes a minimum of bodily movement. This must be regarded as the most important measure during the acute stage.

The question which next arises is: how long should he remain in bed? Naturally, the length of his stay in bed will vary in different cases and will depend upon numerous factors; the extent of the infiltration, the general health, the degree and length of the febrile period, and the age of the child. When it is time for the patient to get up, he should be allowed up at first for only short intervals, which can then be gradually increased if he shows no harmful effects, such as rise in temperature, malaise, etc. Even after the child is allowed up most of the day, a suitable schedule of rest must be prescribed and he should be watched carefully to make sure that he does not overexert or tire himself. At any rate, it is generally advisable in the case of children who have not reached school age to insist on two or three hours' rest every day during the first year, and one hour daily during the second year after the onset of the primary tuberculosis, in addition to the midday rest which every young child should obtain. Older children need proportionately less rest.

A question which often comes up is that of the indications for hospital treatment. Myers, Stewart, and their associates within recent years have advocated the view that a child with primary tuberculosis as a rule does not require hospitalization, but will recover just as quickly at home as in an institution. It is quite true that their studies have taught us a great deal about primary tuberculosis, and have led us to the conclusion that the primary tuberculous lesion does not require the rigid regimen of bed rest for its cure, as does the reinfection type. But there are those who maintain that they have gone too far to the opposite extreme in advocating the closing of tuberculous institutions for children. If finances were available we feel that contacts should be broken by removing the child from the infected household. We do feel that the money could better be used to remove the infected adult from the children.

If home conditions are good and the parents are intelligent and are able to take care of the child efficiently, then he may well recover as quickly at home as in an institution, provided always that the source of his infection be removed from the home, or that he be rigidly isolated from any open case of tuberculosis. It is here that the rub comes in allowing a child to be nursed at home where, as has been mentioned before, in so many cases he has picked up his original infection; and where, unless the strictest precautions are maintained, he will continue to inhale tubercle bacilli unless the infectious member of the household is removed. It is true that hospitalizing a child always involves a certain risk of increased upper respiratory infections. But where a home is overcrowded, with lack of adequate ventilation and light, or where the child will not receive proper food or care, or especially in a home where there is an open active case of tuberculosis, then the child should, in our opinion, be removed to an institution where these conditions can be remedied. In fact the question of hospitalization in a child often becomes as much of a social and psychological question as it is a medical one.

In briefly summarizing, let us remember

that tuberculosis in a child should always be considered where there is a suspicion of tuberculosis in his environment, where there is unexplained fever, loss of weight, chronic cough, irritability, malaise or other constitutional symptoms, or where there is persistent cough after measles or whooping cough. These symptoms should, if unexplained, call for a tuberculin test and x-ray examination, even though the physical examination be entirely negative. Far too often do we see a child with a tuberculous lesion where the symptoms have been attributed to chronic tonsillitis.

It is also to be repeated that this disease cannot be diagnosed in most cases from physical signs alone even by experts. When physical evidence is present it is often of value, but no one can adequately take care of a clinical problem in tuberculosis without the use of the tuberculin test and the x-ray and neither of these aids alone is sufficient but must be used to supplement each other, and are in turn to be correlated with the history and physical signs.

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TREATMENT OF GENITAL TUBERCULOSIS

Ultraviolet treatment for genital tuberculosis in preference to operation is recommended by Eli A. Miller, M.D., Denver, and Mischa J. Lustok, M.D., Spivak, Colo., who, in *The Journal of the American Medical Association* for Oct. 7, report excellent results in fifteen such patients.

The genital condition is usually associated with far advanced tuberculosis of the lungs. The Colorado physicians state that the arrest of the genital infection had a most favorable effect on the disease of the lungs.

They further state: "From the social and economic standpoint this form of treatment is also very favorable. Of the fifteen patients only five are undergoing absolute bed rest; four are totally ambulant, two are ambulant and working in the sanatorium and four are clinically well and living outside the sanatorium and working."

Post-graduate courses on the five venereal diseases will be given at the University of Georgia School of Medicine, Augusta. The first course will begin Feb. 3 and others will follow until May 26.

TULAREMIC PNEUMONIA

Report of Case

P. O. Chaudron, M.D.
Cedartown

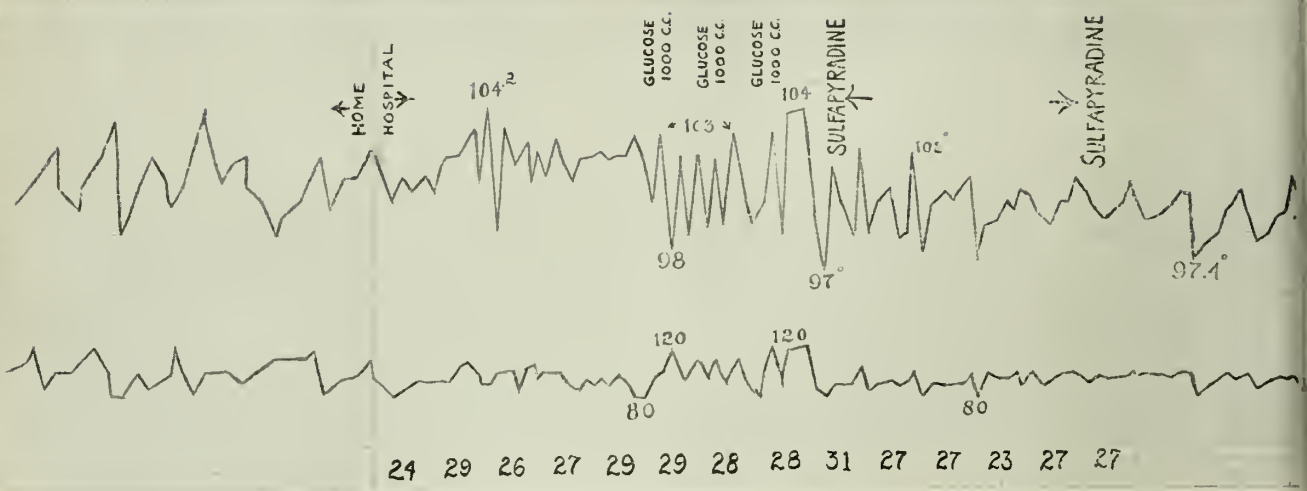
Twenty years ago Edward Francis described tularemia, then a new disease in man. Since that time it has been reported in various places in this and other countries. The *Bacterium tularense*, the causative agent, may be introduced into the human host in various ways. The common sources are by rabbits, hares, ground-squirrels, bite of deer-fly, wood tick, etc. It is supposedly not necessary that there be a lesion, and that the bacterium can penetrate the unbroken skin. Most likely there is some unfound scratch or puncture made while skinning or dressing rabbits or handling other sources of infection.

A primary lesion, finally becoming ulcer-like, is usually found although not always at the site of infection, whether on finger, hand, eye, face, etc., but in either case there is enlargement of the regional lymph nodes and lymphatics. It may occur in any part of the body, but more frequently on the hands from handling infected game, or upon the face or eyes, being carried there by infected fingers.

The average period of incubation is about four days, but some have been reported under 48 hours. The onset is usually sudden, with headaches, abdominal pain and tenderness, chilliness or chills, nausea or vomiting, aching body pains, fever which is erratic, sweats and weakness to prostration. The pulse is slow in relation to the fever, and after about three weeks there is a gradual decline to normal. The weakness may last for many months. The active duration is from two to three weeks, with the symptoms recurring, accompanied by a cough with glary, tenaceous sputum, loss of weight, extreme weakness and secondary anemia.

The mortality is fairly low, about 4 per cent, but morbidity is extensive and the organism may remain in the tissues for

Read before the Seventh District Medical Society, Marietta, September 25, 1940.



some months. Its dissemination to the lungs is probably hematogenous.

It would appear from search of many reports of cases that about 14 per cent develop into the pulmonary type, and that the mortality of the pulmonic cases ranges from 25 to 50 per cent.

The diagnosis other than the clinical picture is greatly and positively aided by the agglutination blood test which is usually absent during the first week, but always appears the second week and reaches its highest titer the third week. Foshay has devised an intradermal test which gives a reaction as early as the fourth day.

Treatment is mainly symptomatic and supportive, but early treatment with Foshay antiserum has materially helped reduce the mortality. Neoarsphenamine has been used, also sulfapyradine, sulfanilamide and other drugs, none with any spectacular results other than antiserum. Elson considers ferrous iodide a specific.

The outlook for any case depends upon the condition of the patient, site and virulence of infection, and treatment. Immunity occurs after one attack and agglutination may be found for many months, up to 10 or 20 years. Pneumonia and meningitis are complications of bad prognostic import. Permar and Maclachlan[1] state: "When a diffuse pulmonary involvement occurs in the course of a tularemic infection the prognosis must be grave, as acute tularemic inflammation of the lung is a progressively destructive lesion." Winter and associates[2] in 1937 said: "A search of the literature reveals only twenty patients who have recovered from tularemic pneumonia. We add the record of three cases."

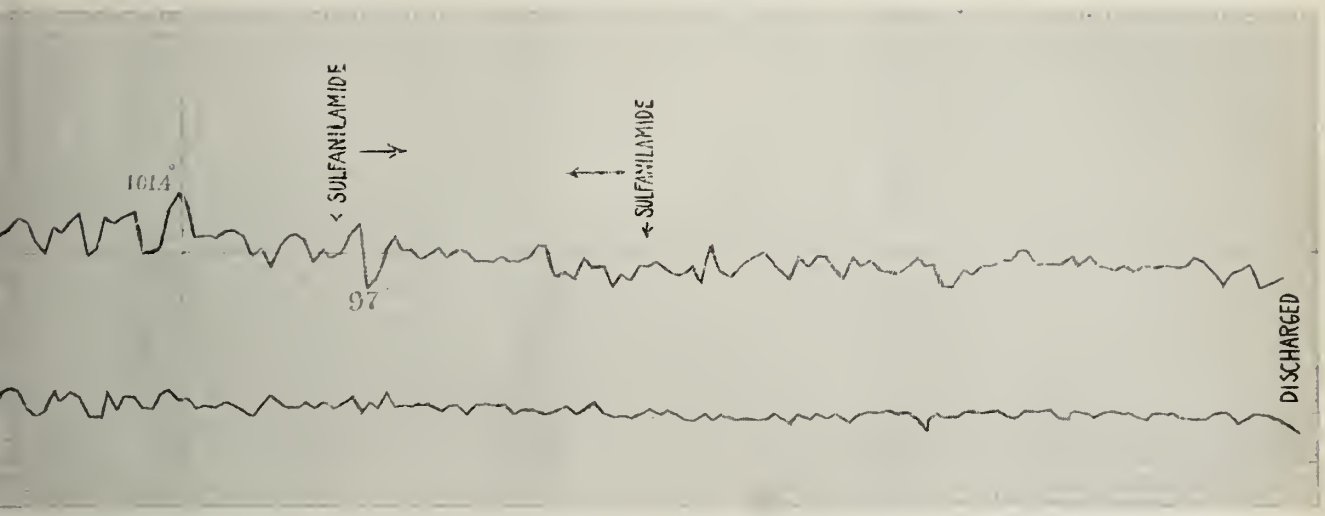
Bowman and Bianco[3] in 1934 reported a case of tularemia with pneumonia and pleural involvement with recovery. (This was not included in Winter's report). Mine seems to be the twenty-fifth case of tularemic pneumonia, with pleural involvement with effusion, with recovery.

It is well to keep in mind this disease when a patient has a primary cutaneous lesion, conjunctivitis, adenitis, lymphangitis, with the train of symptoms mentioned coming on rapidly; or any prolonged fever or unexplained illness might suggest tularemia. In testing blood, a patient may have had tularemia years before and give a positive agglutination test.

Prophylaxis: Avoid handling rabbits, squirrels or other rodents, handling or being bitten by ticks. Rubber gloves should be used, and hunters should not kill slowly moving or sickly looking rabbits or other game.

Report of Case

Mrs. A. S. P., aged 55, gave a history of preparing a rabbit for dinner during Christmas-New Year (1939-40) holidays. About Jan. 1 she had a cough, with fever and chill. These recurred along with nausea. While being treated at home a diagnosis of influenza was made. As she grew worse the pulmonic signs took on the picture of a lobar left pneumonia, at which time, Jan. 8, 1940, she was hospitalized. During the first few days, before the diagnosis of tularemia was made, I gave her pneumococcus antigen hypodermically along with anti-



pyretics and sedatives. She had a lesion on the left thumb which appeared very insignificant at the time, did not complain of tenderness of lymphatics of that arm for some time, and developed no glandular enlargement for several weeks after admission to hospital. She had headaches, pain in left chest and shoulder, upper and lower abdomen, very tired feeling all the time, extreme weakness, sometimes almost to prostration; hot and cold feelings, with chills; clammy skin, profuse sweating, erratic fever, high of short duration, rapidly recurring. Early in the disease there was a little rusty sputum and the diagnosis of "influenza-pneumonia" was made. Cough was bad first few days in the hospital with considerable sputum, sputum then became scant, sticky, clear, glary, with no odor and no blood. Laboratory reported no tubercle bacilli. About the end of the third week of illness, all symptoms slowly subsided except the weakness and secondary anemia. Her blood pressure ranged from 135/85 to 130/80.

Treatment: Atropine gr. 1/200-1/100 for chills; dilaudid gr. 1/40, phenacetin-aspirin for fever and pains; mustard plasters and infra-red heat to chest; mild laxatives. When the diagnosis of tularemia was made, used sulfapyradine gr. 90 first 24 hours; then gr. 60 per day for next 2 days; then gr. 40 daily for next 2 days. This had no beneficial effect. After a lapse of a few days used sulfanilamide gr. 40 daily for 2 days; then gr. 30 daily for 2 days; and this was stopped as temperature dropped below normal. Tonics, liver extracts, sherry, and Burnham's soluble iodine were also used. Diet was mainly liquids and soft foods for first few days, then light diet and in three weeks was on regular diet.

Due to her prostration x-ray of chest was not made until just before discharge from the hospital. There appeared a generalized diffusion over the whole left chest with no fluid line. On account of her age, pale yellowish skin even before illness, weakness, loss of weight, lung carcinoma and tuberculosis were considered along with the present illness. The film was examined by Drs. Aven, Mosteller and Sellers[4] and these conditions were ruled out, with the suggestion that aspiration be done. The glandular enlargement in left axilla persisted, later breaking down with pus formation. Incision was intentionally avoided, and on August 6 it ruptured and drained. During all the time the adenitis had caused very little inconvenience and the patient, though weak, has been up and about since Mar. 15, 1940.

Laboratory Data

Urine: Essentially negative throughout illness.

Sputum: Negative.

Blood: Malaria, Brill's, undulant, typhoid and Kahn tests,—all negative.

Homoglobin average: 60 per cent. W. B. C.: 5,200, R. B. C.: 3,990,000. Polys. 82 per cent, Lymph, 18 per cent. Numerous platelets.

Blood cultures: All tests negative.

Blood agglutination: Tularemia: 1/17/40 Positive

Tularemia: 1/20/40 Strongly Positive. 4 plus in 1:20,480 titer.

Tularemia: 1/30/40 Strongly Positive. 4 plus in 1:20,480 and 1 plus in 1:40,960 titer.[5]

Dr. Sellers wrote: "By far the highest titer we have examined in our own laboratory. To me it would indicate that the patient is rapidly developing antibodies and that there is no need of serum."

Pleural fluid aspirated from left chest—showed: clear, light amber. March 4, 1940, 51 ounces. "Complete agglutination 4 plus with tularemia antigen in 1:5,120 dilution and 2 plus in 1:10,240." March 26, 1940, 46 ounces. "Agglutination 4 plus in 1:5,120—Culture negative." April 12, 1940, 16 ounces. No tests. May 7, 1940, 1 ounce. No tests.

I am indebted to Drs. T. F. Sellers, C. C. Aven and Ralph Mosteller for their valuable and appreciated assistance in this case.

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4. Drs. Ralph Mosteller, C. C. Aven and T. F. Sellers, Atlanta, Ga.
5. Department of Public Health, Atlanta, Ga.
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MULTIPLE SCLEROSIS IN A MENTAL DEFECTIVE

Report of a Case with Serial Sections of the Brain and Cord

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The performance of an autopsy at the Walter E. Fernald State School on a patient with multiple sclerosis in December, 1936, was of interest to the senior writer because of her earlier report on the incidence of this disease in Massachusetts State Hospitals and Schools. This report presented before the Harvard Multiple Sclerosis Commission in May, 1936, contained the statement that in 10,963 autopsy records multiple sclerosis was mentioned in but 25 or 0.23 per cent. Even this low incidence was limited to the insane; not one instance was found in a series of more than 300 autopsies on mental defectives.

Among references to this condition are Dana's[1] statement that it is rarely found among mental defectives; Stieglitz's[2] report of three cases in children, which contains the comment that one was "backward" and Bourneville's[3] extensive communication of one clinical case in an imbecile.

Brain[4] in his extensive review of disseminated sclerosis makes no mention of this disease in mental defectives, though he does mention mental symptoms. Wechsler[5] quoting Redlich, who gives credit to Raecke[6], states that "idiots are more often afflicted than is thought" but adds that few multiple sclerotics in general or nerve hospitals show mental symptoms. Olkon[7] reports a clinical case with "foot tire" beginning at 6 years, who was going through high school satisfactorily in spite of symptoms and signs of multiple sclerosis.

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Against mental defect having slight association with multiple sclerosis, one must remember the low mental rating given the United States recruits in the World War. Bailey[8] states that of the total number of men examined (3,500,000) nervous or mental disease was found in 69.394, and among these, 6,919 cases (excluding paresis) were found to be of organic origin. Of the 6,919 there were 511 men with multiple sclerosis or an incidence of 7.4 per cent. Neff[9] describes a patient of 52 who died in a Michigan hospital with a diagnosis of secondary dementia. He had a remarkably poor family history and his mental defect was apparent at 13, antedating "motor difficulties and general debility" that prevented him from entering the Army at 21. Drawings of plaques in the brain slices are included in Neff's study. Acker[10] makes a brief note of a clinical case with signs of multiple sclerosis in a Negro child of four and one-half years. This is important because of the rarity of this condition among Negroes, as well as the youth of the patient. He makes no comment on the child's mentality. Schob[11] offers the unexpected contribution of autopsies done on two monkeys, 12 and 18 years of age, which had spontaneous multiple sclerosis. Lellman[12] reports a case studied in a dog although he was not permitted to do an autopsy. Dreschfeld[13], reporting early (1877) two cases in children, mentions that they showed blunted intelligence and were unable to work, but there was no autopsy. Kleudgen[14], four years later (1881) reports a female idiot with multiple sclerosis upon whom an autopsy was done.

Beach[15] with Sir Frederick Mott, made an intensive study in Claybury, Essex, England, of a case of multiple sclerosis of the central and peripheral nervous system.

Our survey of United States institutions for mental defectives and for epileptics was done through a simple questionnaire asking for the total number of admissions, the number of patients having multiple sclerosis, and the number of such patients coming to post mortem examination. To the 76 letters written, 65 replies were received giving a total of *201,168 admissions and 19 cases*

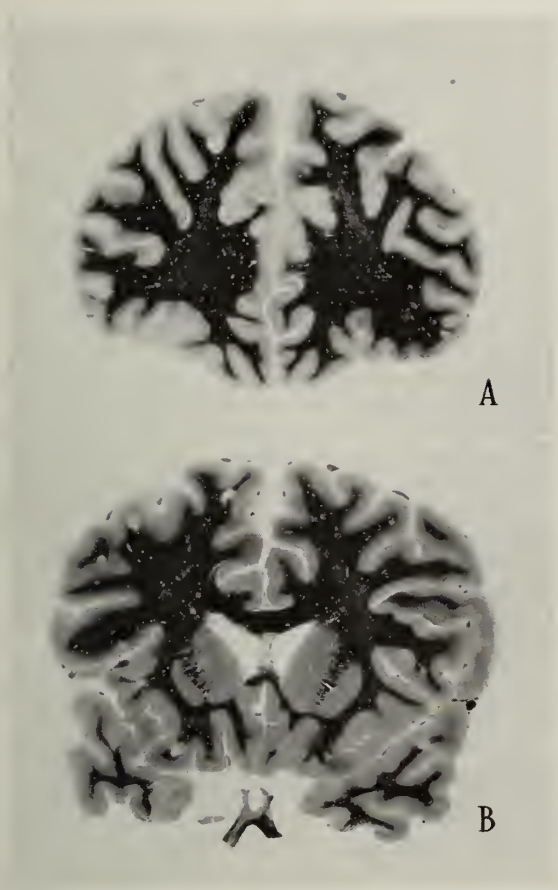

Fig. 1. Frontal sections, a-b, stained by the Weigert method to demonstrate myelin sheaths, cut at 50 mu. Note circular opacities; few in a, plentiful in b, in both cortex and white matter.

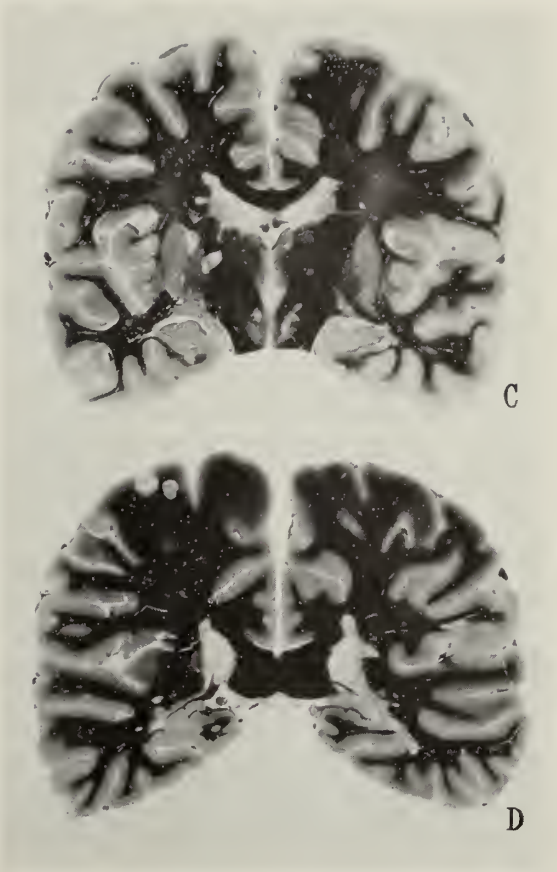

Fig. 2. Frontal sections, c-d, as a-b, showing multitude of focal lesions, increasing around ventricles.

of multiple sclerosis, (an incidence of .009 per cent), of which four came to autopsy. This low number (none published) gave us the assurance that we were presenting a unique communication in the following recital.

Case Report: W.E.F.S.S., 7934, a male was born in the Newton Hospital, Massachusetts, Oct. 10, 1912. There had been a brother and a sister but nothing was known of them. When he was *six years old* he was injured by an automobile which knocked him about 25 feet, but it is not known if he were unconscious. He was in bed two weeks after the accident. He had the usual diseases of childhood and when 13 he had an attack of *bronchitis* for which he was in bed three weeks. No other illness is reported except coughs and colds.

An unsuccessful effort was made to obtain a record of his grades in the various primary schools he attended in Massachusetts and New Hampshire. The boy's father (a gardener) died at 47 after being hit by a train, and his mother died at 53 of cancer when he was nearly 15 years old. He was accepted by the Farm and Trades School (a privately endowed school for boys whose homes are broken by death or otherwise), on Thompson's Island in Boston Harbor, in December, 1926.

A summary of his stay in this school from 1926 to 1931, contains the following statements: "It was obvious that he was *never intellectually normal.* His *work was fair* in the 6th and 7th grades. *As he advanced in school* the work became *increasingly difficult for him,* and there was a *gradual drop in his school marks.* His school *effort,* however, was consistently Good or Excellent." The other boys at the school apparently accepted him.

In October, 1929, he was treated at the Boston City Hospital for a dislocated finger, but six months later according to the boy's own statement, in the evening on or about April 15, 1930, when he was seventeen years old he noticed that his left thigh was numb. He had completed a full day's work on the farm without any precursory symptoms. He experienced this same sensation for several nights though he felt as strong as ever during the day. When getting out of bed on the morning of May 1st he found the muscles of the right calf stiff and by May 3rd he was quite lame, with this leg so weak he could hardly use it.

After five days in bed (he also had a "cold") he got up on May 9th and found he could walk but the right leg was still weak and he used it with a flail-like action. There was *no pain* in either leg, nor did coughing, sneezing or straining at stool cause any, nor was there any numbness. About this time he began "to see double"

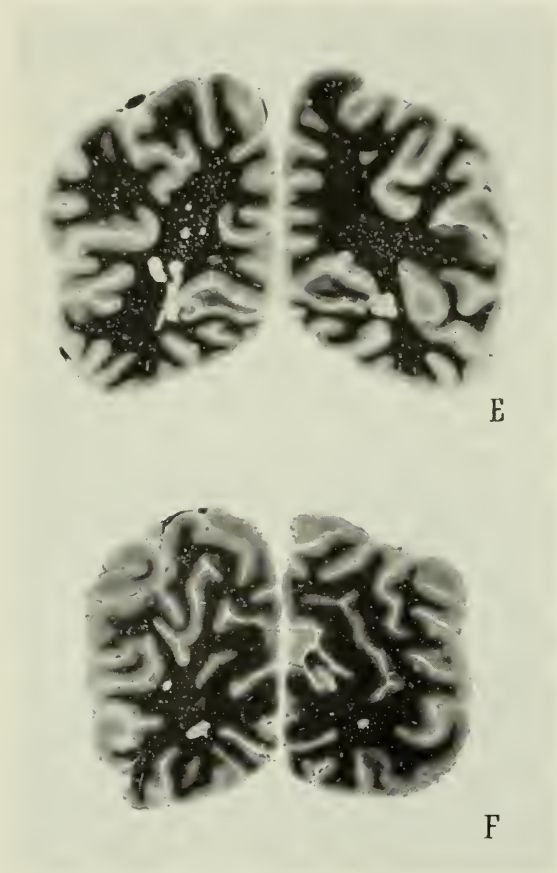

Fig. 3. Frontal sections, e-f, as a-b, showing lessening of number of opaque lesions in f.

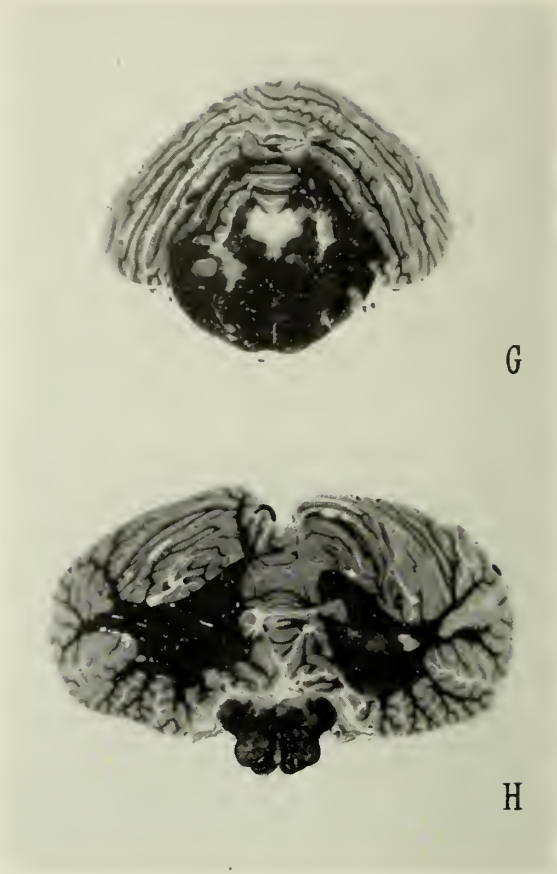

Fig. 4. Cerebellum and pons, g, cerebellum and medulla, h. Pons more involved than medulla.

and had difficulty in starting the stream of urine but not in stopping it. This last symptom improved temporarily but re-appeared in 1935.

He was sent to the Out-Patient Department of the Boston City Hospital on May 10, 1930, for treatment of "the nerves in his legs" and they in turn referred him to the House.

From May 10-27, 1930, he was kept in bed and seen by the whole neurological staff. A diagnosis of multiple sclerosis was made on admission and on discharge because of the following findings; diplopia, bitemporal pallor, nystagmus, hyperreflexia, absent abdominal reflexes, swaying in station, bilateral Babinski, impaired vibratory sense, monoplegia and subjective numbness. In the fluid from lumbar puncture there was a cell count of 30, a gold sol reduction (2233321100); slight albumin was found in the spinal fluid, but both serum and fluid were negative to tests for syphilis.

After the initial rest in bed he was up assisting with ward work and when discharged July 14, 1930, his gait had improved though he was still spastic. The Babinski reaction was less definite, but he had a tremor. He was considered in a receding stage of his acute attack and on second examination his spinal fluid showed 23 cells and a gold sol reduction of 0001211000. Pertinent to treatment, it was the contention of one member of the staff that all patients with their first attack of multiple sclerosis should be treated as sick patients and kept in bed; especially when their spinal fluid cell count is high, in an effort to limit the spread of the lesions.

It was found that he had meagre common knowledge and misspelled all the states given him to write. He was described by one examiner as "not too bright," by another as "mentally retarded."

After his return to Thompson's Island, no additional change was noted during the eight months preceding his admission to the Fernald School in February, 1931. Since his early complaints were of numbness, stiffness and weakness, the number of clinical findings is surprising.

In February, 1931, when 18 years and four months old, he was examined in the Out-Patient Clinic of the Walter E. Fernald State School. He was found to have a mental age of 10 2/12 years, with an intelligence quotient of 64. He was said to be unable to compete with the normal boys in the Farm and Trades School and showed poor progress in his studies. From the nystagmus, unsteadiness in Romberg position and irregular left pupil found on admission to the Fernald School, it was inferred that if he had multiple sclerosis, he was in a state of remission.

Five months later the patient complained of diplopia and a feeling of weakness and numbness of his hands.

In 1932 a note stresses tremors and states that his "legs gave way." It is reported also that one night he fell on the way to the movies and had to be carried by the other patients. Two years after admission (1933) it is recorded that he was working in the ward, had not fallen so much and had been out coasting.

In *November, 1935*, thirteen months before death, a careful examination was made because he was weaker and hardly able to walk. Every classical sign and symptom could be demonstrated—intention tremor, nystagmus, scanning speech, exaggerated knee jerk, Babinski and ankle clonus on both sides, absent abdominal reaction, positive Romberg, slight pupillary reaction, diplopia and typical gait. Curiously, the temporal pallor present in 1930 could not be seen now, but he had a return of one of his initial signs, difficulty in urinating. Six months later he had emotional upsets, threatened to break things and to injure himself.

He showed none of the buoyant spirit usual in this disease but brooded over his condition and became very irritable. The difficulty with his legs, first noted in 1930, increased steadily and though he formerly had enjoyed kicking a football, he now would fall flat on his face if he attempted it.

A month before death at 24 years of age, he had a mental age of 11 years and 6 months with an intelligence quotient of 72 according to the 1916 Stanford-Binet scale. This improvement over his rating on admission six years earlier is a curious accompaniment of the increasing severity of his cerebrospinal disease.

His terminal illness was a pneumonia of lobular type, complicated by the development of bedsores, incontinence and retention. He died December 9, 1936.

The protocol of the autopsy done 16 hours later is here presented briefly in the anatomical diagnosis for the body, more in detail as to head and cord.

Slenderly built
Poorly developed
Poorly nourished
Loosened skin over chest and back
Decubitus sacrum and heel and back
Abrasions legs
Head hair abundant; eyebrows scanty, beard patchy
Body hair irregular
Lower teeth, thin on free edges
Diaphragm lower, left (fluid in chest)
Fibropurulent pleuritis, both sides
Pyo-hydrothorax, left
Pulmonary abscesses, both lungs (not tuberculous)
Bronchopneumonia
Gray spleen (29,000 w.h.c. in life)
Cloudy liver
Congested kidneys
Purulent cystitis; hemorrhagic cystitis
Testicle threads poorly

Head: Calvarium weighs 325 grams. Measures: frontal 0.3 cm., temporal 0.4-0.3 cm., and near occipital 0.9 cm. The *inner table* shows two deep depressions which nearly pierce to the outer table and there is but very little diploe in the frontal and temporal portions, but more in the parietal bone. The *sutures* are moderately well seen near the vertex as both coronal and sagittal lines but on the outside the lines more completely represent these sutures. The inner table is fairly

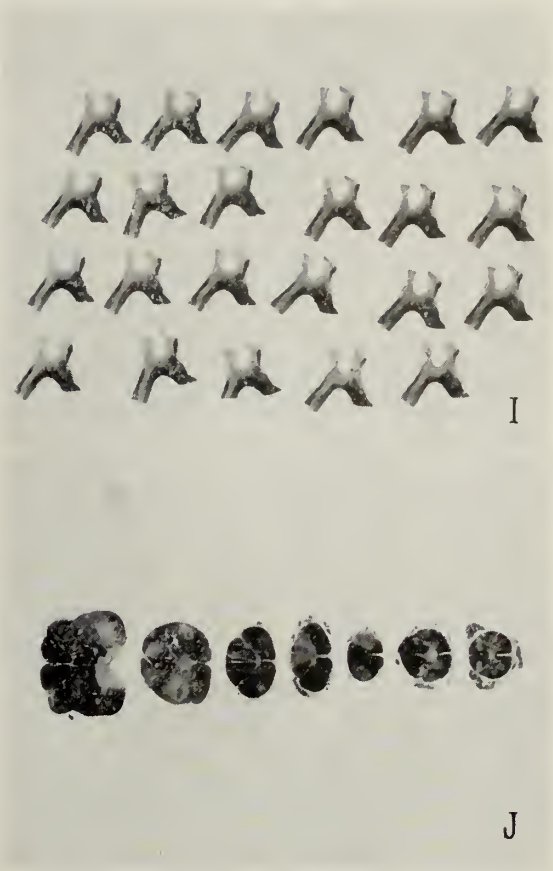

Fig. 5. Optic chiasm i, levels of medulla and cord, j. Notice variation of lesion in i, and patches of opacities in cord, j.

smooth and light can be transmitted on both sides and in front and in the middle following roughly the suture lines and the site of the anterior fontanelle. *Dura* not adherent to the bone, is stretched tightly over the hemispheres and a suggestion of the convolutions can be seen through it. The longitudinal sinus is very small and richly criss-crossed by fibers and can only be followed for a short distance anterior to the center portion.

Reflecting the dura, the *pia arachnoid* is slightly hazy along the vessels near the vertex on both sides. The convolutions appear rich and the pattern is complex as seen in the frontal and vertex regions. The veins over the surface of the parietal area are somewhat prominent but the blood will move in them.

Brain Weight 1695 grams. At the *base of the brain* the *olfactory tracts* are very small and the *bulbs* are semi-adherent to the brain substance. The *optic* nerves are small but rounded and the third nerves are caught in thickened arachnoid. Other cranial nerves not notable.

Basal vessels can hardly be seen, their walls are so thin, and the *basilar* is small and flat.

The *pons* is firm to touch as is the medulla, especially around the olivary bodies and there is a distinct pressure cone surrounding it in its superior half.

The *cerebellum* is small and firm.

The *optic nerve heads are very small.* The optic nerves are flat where they enter the orbital canal.

Spinal Cord: The skin on back shows loosened rolls of epidermis on the surface to the waist line. There are also *petechial hemorrhages* above scapular line. Over sacrum there are superficial butterfly-shaped pressure sores.

The *cord* shows an elastic *dura* and injected vessels over the pia. Looking closely, irregular areas of dull grey-blue near-translucency are seen on the posterior surface and are slightly softer than the opaque portions. The lumbar level is firm.

On *section* irregular areas of pink translucency occur in different locations in the cord, least in thoracic regions. In *lumbar* cord the posterior columns are grey—thought to be the older lesion.

Brain large	Firm cerebellum
Brain pattern good	Optic discs small
Firm pons and medulla	Brain weight 1695 grams
Unequal occipital tips	Multiple advancing
Small cerebellum	plaques in cord

The whole brain was photographed externally and in frontal slices to show its development and the condition of the membranes and to see if the interior views would indicate the scattered lesions thought to be there.

To our surprise, the brain looked plump and well developed and cross sections showed no translucent areas we could put our fingers upon. A little hyperemia in patches, a not quite clear white matter in all surfaces were our only rewards in the sliced cerebrum and cerebellum. Not convinced, the time was taken to make 50 mu sections of the six transverse cuts and stain them by the original method of Weigert for myelin sheaths. These preparations revealed scattered lesions; they were small and few in the frontal, increasing to a maximum at mid-motor region, and again less in the occipital regions in cortical, subcortical and peri-ventricular locations. The pons was not as striking in its "Holstein-cow-hide markings," as E. E. Southard used to say, as many, but not all cows of this breed are spectacularly black and white! The medulla and cord show definite evidence of the disease where the myelin has been replaced by glia in many points.

Summary

1. The 65 replies to a questionnaire sent to 76 institutions for mental defectives and epileptics in this country, show that multiple sclerosis occurred in 19 patients in an accrued population of 201,168, and only four were subjects of postmortem examination.

2. We present a report on a 24 year old American born white male with mental defect (moron) who died with multiple sclerosis.

3. His mental defect was recognized to have antedated his central nervous system disease (increasing difficulty in school grades).

4. We believe we are reporting the first mental defective to come to autopsy in the United States in which total brain and cord sections were made. They show the distribution of the lesions of multiple sclerosis in this case.

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NASAL GAVAGE IN TETANUS NEONATORUM AND OTHER SERIOUS DISEASES OF INFANTS

Report of Cases

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Donalsonville

The complete recovery of four patients with tetanus neonatorum, of one 4-months-old infant with pneumonia and of one 6-months-old infant with chronic infectious ileocolitis, in whom nasal feeding was employed practically throughout the treatment period, is reported for the purpose of emphasizing the importance of using a feeding method in the treatment of sick infants that will materially lower infant mortality rates; and to request physicians not consider tetanus neonatorum as hopeless in regard to cure in spite of the fact that it has a reported 95 per cent mortality rate.

During the writer's clinical years in medi-

cal college and internship in general hospitals nasal feeding of sick infants was never demonstrated and never stressed. Instead fluids by hypodermoclysis or by intraperitoneal injections were emphasized almost exclusively as methods to be used in the administration of fluids or food in liquid form to infants that were not obtaining sufficient fluid by nursing. The introduction of an 8 or 10 French common soft rubber catheter into the stomach of an infant through its nose is a simple procedure. The catheter is fixed with adhesive tape to the nose and cheek of the infant and a small hemostat or screw-clamp may be used to clamp off the catheter when not injecting fluid. Any nursing attendant can be easily shown how to administer milk or other fluids to the infant.

The four cases of tetanus neonatorum reported were seen between February and December, 1937. Tetanus in the newborn is generally regarded as an uncommon disease in this country and one which almost invariably proves fatal. The writer in ten years of public health work and general practice did not see a case of tetanus neonatorum but since February, 1937, has seen seven cases in Southwest Georgia and has treated four cases in his practice. Figures compiled by the Bureau of Census show that there were 183 deaths reported from tetanus neonatorum in the United States in 1934 and 135 in 1935. There are probably many cases of tetanus neonatorum that are not diagnosed or deaths from this disease that are not reported.

Report of Cases

Case 1—White male, aged 11 days, delivered by midwife, was brought into office on Feb. 10, 1937, with history of inability to nurse the breast for two days and of having frequent convulsions. All characteristic symptoms of tetanus were present; the rectal temperature was 104 F., and the weight 6 pounds and 4 ounces. Mother's blood Wassermann was negative. The baby was hospitalized, a catheter was passed through its nose into stomach and 5 grains each of chloral hydrate and sodium bromide were given through catheter. This dosage of chloral hydrate and sodium bromide was repeated as often as needed to control tetanic spasms, usually about every 12 hours. Tetanus antitoxin was given in 5,000 unit doses intramuscularly around the umbilicus every 12 hours until four doses were given. One ounce of diluted cow's milk was given every 3 hours and one ounce water every 3 hours. Five days after treatment was commenced the spasms had ceased, the baby was able to nurse from a bottle and it was sent home to resume breast nursing. On discharge from the hospital the patient weighed 6 pounds and 10 ounces, a gain of 6 ounces in 5 days. Six months later its weight was 16 pounds and 3 ounces, and twelve months later 23 pounds; and he appeared to be a normal healthy baby.

Case 2—Negro female, aged 10 days, delivered by midwife, was first seen in its home on July 20, 1937. Same history and symptoms as in Case 1. Its rectal temperature was 105.4 F., and its weight 6 pounds. Mother's blood Wassermann was negative. This infant was hospitalized and the same treatment was carried out as in Case 1. The infant was discharged from the hospital after 7 days and resumed breast nursing. During the 7 days in hospital she gained 5 ounces and during the next 6 days, while on breast feeding, gained 1 pound and 3 ounces. Five weeks later the weight was 13 pounds and 10 ounces, a gain of 6 pounds and 2 ounces in a 5-weeks' period. This patient was last seen on Mar. 27, 1939, was walking and talking and apparently none the worse from its tetanus infection.

Case 3—White male, aged 13 days, delivered by the writer on July 18, 1937, was seen by another physician on July 31, for difficulty in swallowing and was seen again by the same physician and the health officer of the county in which he lived on Aug. 5 at which time a definite diagnosis of tetanus was made but no treatment was given as the infant was apparently dying. The writer heard of this case of tetanus in a very unusual manner as follows: A nurse employed by the State Department of Public Health was writing a report of her investigation of two cases of tetanus neonatorum previously reported by the writer and her report was being prepared in the home town of the health officer who saw this infant. The nurse phoned this health officer to ask how "neonatorum" was spelled and immediately learned about this case. Then proceeding to investigate this latter case, the nurse learned that the infant was still living two days after being last seen by a physician. She immediately reported the case to me and I obtained permission from the physician by phone to visit the infant. This was on Aug. 7, eight days after initial symptoms of tetanus were noted. The infant was extremely dehydrated, having been fed with medicine dropper for 7 days. Its temperature by rectum was 107.4 F., respiration 80 and heart rate 240, and it had all characteristic symptoms of tetanus. Its mother's blood Wassermann was negative. The infant was immediately placed in ice pack, catheter placed in stomach and 7½ grains each of chloral hydrate and sodium bromide were given through the catheter. Eight ounces of water and 1 1/3 ounces of mother's milk were given through the catheter in 15 minutes and this large amount of fluid was apparently readily absorbed. The spastic muscles relaxed almost instantly after chloral hydrate and sodium bromide were given. Within 35 minutes after first seeing infant its temperature had dropped from 107.4 F. to 100, its respiration from 80 to 40 and its heart rate from 240 to 180. Ten thousand units

of antitoxin were given intramuscularly around the umbilicus.

The infant was left in the home, the grandmother was shown how to feed it and one ounce of breast milk every 3 hours and one ounce water every 3 hours were given. The attendants were instructed to phone me when it started having another convulsion and about every 12 hours it was necessary to make a trip to the home to give chloral hydrate and sodium bromide to keep it relaxed. The infant was given two additional injections of antitoxin 12 and 24 hours after the initial injection but the amount was reduced in these two instances to 5,000 units. On Aug. 27, ten days after treatment was started, the baby was able to nurse. Its birth weight on July 18 was 6 pounds. No other weight was obtained until it was brought to office on Aug. 20 when it weighed 6 pounds and three ounces. Exactly one month later its weight had increased to 9 pounds and 12 ounces, a gain of 3 pounds and 9 ounces in one month. This infant's further progress has been that of a normal healthy baby.

Case 4—White female, aged 8 days, delivered by physician, was first seen in office on Dec. 15, 1937. History and symptoms as in previous cases. Mother's blood Wassermann negative. Its temperature was 103.6 F. and the heart rate 180. Catheter was placed through nose in stomach and infant given 5 grains each of chloral hydrate and sodium bromide, and its spastic muscles relaxed almost immediately. Antitoxin in 5,000 unit doses was given intramuscularly around the umbilicus and the aunt of the baby was shown how to feed it, one ounce each of breast milk and water being ordered every 3 hours. The infant was sent home and the attendant instructed to bring it to the office whenever it commenced having convulsions. Chloral hydrate and sodium bromide in 5 grain doses were required about every 12 hours. Three additional injections of antitoxin in 5,000 unit doses were given every 12 hours. This infant was able to resume breast nursing four days after treatment was commenced and its later progress has been normal.

The four patients with tetanus neonatorum were seen by several physicians. All patients had typical textbook symptoms. None had spinal or cistern punctures for diagnostic or treatment purposes. All were given massive doses of chloral hydrate and sodium bromide to control convulsions; all fluids were given exclusively through nasal catheter and relatively small doses of antitoxin were administered although pediatricians generally recommend similar doses of antitoxin in children and infants as in adults. Many recommend sedatives, such as magnesium sulphate, tribromethanol, phenobarbital, sodium amytal, etc., but these were not used.

Case 5—Protracted influenzal pneumonia. White male, aged 4 months, was seen in office on Dec. 25, 1938, with pneumonia following influenza. Instead of clinical evidence of scattered interstitial pneumonia there was evidence of almost complete consolidation of right lung and scattered consolidated areas in left lung. The infant was markedly dehydrated and looked moribund. Arrangements were made for the infant and its mother to stay in office night and day so that it could be observed frequently. It would not nurse the breast or from the bottle and made no effort to swallow any fluid placed in its mouth. Nasal feeding was resorted to and it was given 4 ounces of breast milk and 2 ounces of water every 3 hours. Repeated efforts to make the infant nurse were unsuccessful until Jan. 19, 1939, twenty-five days after treatment commenced. Fluids were given only by nasal catheter throughout this period. With the clearing of the pneumonic process and the approach of normal respiration, the baby commenced breast nursing and was dismissed on Jan. 29, thirty-five days after treatment was commenced. No signs of clearing of lungs were noted until the last ten days of its treatment period but rapid improvement was noted during this latter period. The infant has progressed normally since. An unusual feature of this case was an unexplained sudden cardio-respiratory failure which occurred five days after the onset of illness in which the infant actually ceased breathing and the heart sounds could not be elicited. One cubic centimeter of adrenalin was injected into its heart but heart and respiratory actions were not resumed until what seemed to be several minutes of inflating and deflating its lungs by blowing breath into its mouth and compressing the chest. With the restoration of feeble heart and respiratory actions 1/300 grain of atropine sulphate was injected subcutaneously followed by the subcutaneous injection of 7½ grains of caffeine sodium benzoate and 0.5 digifortis. The infant lived.

Case 6—Chronic infectious ileocolitis. White female, aged 6 months, first seen in office on May 22, 1938, with history of bloody diarrhea of three weeks' duration and refusal to take any nourishment for past 24 hours. This infant who was said to have weighed 9 pounds at birth now weighed only 10 pounds and 4 ounces. She was excessively dehydrated and in a comatose condition. A catheter was placed in her stomach through the nose and the mother was instructed in giving milk and water in large amounts. The baby was sent home and returned to the office daily. She was too weak to nurse before June 19, eighteen days after nasal feeding was commenced. Frequent bloody stools had persisted and during the 18-day period of nasal feeding she had lost an additional 6 ounces in weight although the general appearance was better than when first seen. Baby lost weight slowly for forty-three days and on July 4 weighed only 9 pounds and 2 ounces. From this date on she gained steadily and on Aug. 27, about 3 months after commencing treatment, weighed 14 pounds. The baby has gained rapidly since and appears to be normal today.

Comment

Nasal feeding has been used by the writer in several other cases but the six reported should definitely indicate its value. It is a method of administering fluids that can be carried out with office patients or clinic outpatients and it should be of particular value in a general rural practice. One will have

patients in whom nasal feeding will not be practicable on account of vomiting or for other reasons but these will not be of frequent occurrence. In the 1933 edition of Holt's Diseases of Infancy and Childhood a warning is given about allowing a nasal catheter to remain in place more than a half day at the time on account of ulceration or infection of the throat. In this series the catheters were allowed to remain in position without moving from 3 to 7 days and no harmful effects were noted. In the series of tetanus neonatorum the catheter was not only allowed to remain in place but the infants were kept asleep practically all the time they were under treatment, from 5 days to two weeks.

Summary

A series of cases is reported in which nasal gavage was used exclusively in administering fluids to infants unable to nurse normally.

This series includes four cases of tetanus neonatorum, one of protracted influenzal pneumonia and one of chronic infectious ileocolitis. All patients recovered.

RUPTURED PRIMARY JEJUNAL ULCER

L. W. Williams, M.D.
Savannah

Abnormalities and diseases of the jejunam are seldom thought of. It is fortunate that this section of the intestine is not more often the seat of disease. Rarely we do find such lesions as polyps, diverticula, carcinoma, adhesions and ulcers following gastrojejunostomy. Rupture of primary jejunal ulcer is extremely rare.

Rufz first called attention to ulcers of the jejunum when he reported a case in 1843. F. E. Zimp, of Columbia, S. C., reported a case of ruptured jejunal ulcer in June, 1937, and in reviewing the literature, both domestic and foreign, up to January, 1940, noted 52 cases reported with 43 perforations.

The importance of this type of ulcer is appreciated when you consider its mortality. Of the 52 cases studied and reported, 28 died, making a total mortality of over 53 per cent. There were 43 perforated cases of whom 23 died, a mortality of 55 per cent. Those operated on within 24 hours had a much lower death rate.

Pathology

The most common site of ulcer in the cases reported was in the first one-third of the jejunum. Sixty-eight per cent were situated in its proximal portion. The majority (83 per cent) were opposite the mesenteric attachment, and varied in size from 2 mm. to 2 cm. and usually were single. Eighty-six per cent were circular in shape with a clean-cut punched-out appearance, and on cross-section were often terraced. This latter feature accounted for the minute perforation at times. There was usually some narrowing of the lumen due to the marked fibrosis that had developed over a considerable time. The majority perforated, sometimes very early, but as a rule not until after well developed fibrosis had taken place.

Hemorrhage was rare, and none became cancerous. The regional lymph nodes were often enlarged and showed inflammatory changes. Microscopic studies showed a necrosis varying in depth from the mucosa to the serosa with round cell infiltration and fibrosis of varying degrees. Very few showed any change in the vascular system except an occasional thrombosis. The ulcer had not the appearance of those sometimes found in the jejunum in tertiary lues and Levaditi's technic was negative when done. The giant cells of tuberculosis were not seen.

Etiology

I think one can state with certainty that the true cause is not known. All of the theories that have been advanced for the development of ulcers in other parts of the gastro-intestinal tract have been suggested, such as emboli, vascular changes, endocrine disorders, streptococci, irritative action of the intestinal chyme, and so on. It is certainly possible that the initial factor may be the result of some previous disease of the intestinal tract, as the enteric fevers, amebic or bacillary dysentery and cholera. Heterotopic gastric mucosa was

present in one patient (Puhl's case). A focus of infection from which bacterial emboli are carried to the jejunum is possible. Smith's case had thrombo-angiitis obliterans, but this condition was not evident in the ulcer, and in most of the cases there were no vascular changes. Trophic disturbances, trauma and foreign bodies, as a fish bone, are mentioned. Abnormal acidity of the jejunal contents from pyloric dysfunction is inferred. Tuberculosis is possible and should be ruled out by detailed studies. Syphilis is difficult to exclude. The presence of a positive Wassermann reaction does not mean that the ulcer is luetic. Spirochetes should be found in the ulcer by Levaditi's method.

The majority of ulcers occurred between the ages of 31 and 60, with from 40 to 60 predominating. They were three times more frequent in males than in females.

Symptoms

In seven cases there were no symptoms previous to sudden rupture, but the remaining patients had had indigestion and abdominal distress from a few weeks to a year or more. Pain was usually present in the midepigastrium or was periumbilical. Sometimes it was general abdominal, in the left upper or lower quadrant, and occasionally in the right or in the back. It was characteristically described as hurting, colicky, cramp-like, or boring. In about 12 per cent the pain resembled that of duodenal ulcer, occurring 2½ to 3 hours after meals when the ulcer was very near the duodenum. Food sometimes relieved it and at other times aggravated it. Gas, heart burn, sour stomach, belching, nausea, vomiting and constipation were frequent. Two cases had bleeding and one had hiccoughs. As the ulcer progressed with the development of stenosis, subacute high obstructive symptoms appeared: colicky pains, belching, nausea, vomiting, distention (upper abdominal), constipation, rather marked, and visible peristalsis. Movement of the bowels, particularly after a laxative, usually aggravated the pain and the peristalsis. Acute perforation occurred in all but nine cases and was ushered in with a sudden and severe pain in the midabdomen, soon becoming generalized. In several cases the pain radiated to the left side, and in only one case did it localize in the right lower quadrant. There was also shock, board-like rigidity, tenderness and usually a diminution of liver dullness. Those in whom operation was delayed or who were not operated upon at all developed the usual signs of a general peritonitis.

Diagnosis

A careful history of chronicity of symptoms should make one suspicious of jejunal ulcer. The subacute obstructive signs of upper jejunal involvement should be easily recognized, as well as the signs of acute perforation. The laboratory studies aid very little, for the gastric analysis is usually low in acid content and there is no change in the blood count, except in perforated cases. Fluoroscopic examination frequently gives the diagnosis in the non-perforated cases. Studies of the jejunum five hours after the opaque meal often show a regurgitation with stasis and dilatation proximal to the lesion. Occasionally the ulcer may be demonstrated, but more often narrowing of the lumen is present due to the stenosis. If the obstruction is complete a plain roentgenogram will often show the jejunal pattern containing air. In the perforated cases a roentgenogram in the erect position will show an air bubble under the dome of the diaphragm. At operation a thick ropy mucoid exudate is usually found.

Treatment

Medical treatment is of no value in the majority of cases. As soon as the diagnosis is made of either the perforated or non-perforated cases, operation should be performed. In the non-perforated cases, a resection of the ulcer-bearing area is preferred. In the perforated cases oversewing and drainage are usually done. Sometimes a resection with lateral anastomosis is necessary.

Report of Case

W. S., male, aged 41, was operated on May 24, 1940. His past history negative except for usual childhood diseases. Present illness sudden onset with acute pain in upper abdomen. Was seen six hours later and sent to the hospital with a diagnosis of acute ruptured appendix. Laboratory findings were: white blood cells 12,500, red cells 3,600,000.

(Continued on Page 27)

THE PRESIDENT'S PAGE

MEDICAL SOCIETIES

America has a reputation all over the world for its craze and genius in forming organizations. There is scarcely a town or village in America that does not have some organization such as a Rotary Club, a Lions Club, a Civitan Club or a Chamber of Commerce, and we of the medical profession have the same urge. I do not know exactly how many medical societies there are in America, but every specialty in every state seems to have state and national organizations. Most of them are good and serve useful purposes.

One who is only interested in one specialty must of course find it more interesting and entertaining to meet and exchange ideas with other men in the same specialty. This is understandable, of course, but one should not neglect his county medical society, district medical society, state medical association and American Medical Association, because the foundation of our medical set-up rests with these societies. Thus, it is extremely imperative that they have your cooperation and enthusiastic support.

These societies—your county, your district, your state, and your American Medical Association—make up organized medicine and through your representation in these bodies your wishes in regard to the various issues that confront us as doctors are handled. Through these organizations our policies are formed, the practice of medicine and the regulation of licenses are controlled, the standards of medical education are established, the food and drug laws are regulated, and the public health through certain health laws and policies is promoted. Research in medicine and medical preparedness are also accomplished through the efforts of organized medicine.

At the present time the physicians of America, through the initiative of the *American Medical Association*, not only have given and are giving their services free to examine the draftees of this country, but they have spent over $100,000 of its funds in furthering the national preparedness program.

It is the duty of every doctor to give his loyal support to his local county society, which duty can and should be a pleasure if each one will aid in getting up good and interesting programs.

After all, one gets out of anything only what one puts into it. One need not necessarily feel that he has to read a scientific paper that will revolutionize the practice of medicine. This is rarely done, but he can, at least, give an interesting case report.

Even in small county societies the programs can be made interesting by the showing of medical motion pictures, by reporting interesting cases, by discussing among the members various topics and by, occasionally, having an invited outside member as a guest to read a paper. As a rule, the man who reads a scientific paper gains more through his efforts to prepare it than do his listeners. So, in this way, better physicians may be made of all of us by each one trying his hand occasionally.

May each one of us make a greater effort to attend our special societies and by all means attend and contribute something to our respective regular organized county medical societies and State Medical Association.

J. C. Patterson, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.
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THIAMINE AND NEURASTHENIA

Neurasthenia as diagnosed by the discriminating physician is manifested by slight generalized weakness, fatigue, lassitude, slight loss of memory, precordial distress (pseudoangina), obscure pains in the muscles, headache or a feeling of a band drawn about the head, and in severe cases insomnia, loss of appetite, dizziness and finally a state of anorexia nervosa. In the majority of cases the causes of neurasthenia are multiple. Frequently it is due to a defective constitutional makeup which may be associated with a mild hypothyroidism; or it may accompany one of the chronic infections, such as active tuberculosis, or it may be associated with a gastric or duodenal ulcer. It has long been known that subnutrition produces states of nervous exhaustion, but only in recent years has it been recognized that neurasthenia is often due to a deficiency of certain vitamins.

Recently Williams, Mason, Wilder and Smith[1] reported their observations on induced thiamine (vitamin B_1) deficiency in man. Their work is valuable and convincing because the experiments were carried out on individuals whose diets could be carefully regulated and controlled. Several types of persons—fat, thin, asthenic and sthenic—were subjected to the experiments and it is interesting to note that the symptoms due to thiamine deficiency were the same in all types of patients. Eight patients were subjected to a diet containing only 0.15 mg. of thiamine daily. With the exception of thiamine the diet was adequate. After the first few days signs of neurasthenia, such as weakness, obscure pains and precordial distress were observed. Thiamine deprivation was continued in one group of four persons for eighty-eight days and in another group for one hundred and forty-seven days. The amount of thiamine excreted in the urine fell rapidly to remarkably low values. The time of onset of symptoms varied. In general the more active subjects were the first to experience signs of a thiamine deficiency. Briefly the symptoms observed in all patients were: depressed mental states, generalized weakness, dizziness, backache, soreness of muscles, palpitation, dyspnea and precordial distress on exertion, insomnia, loss of appetite, nausea, vomiting and atony of muscles, slight roughness of skin, faint heart sounds, lowered blood pressure and bradycardia while at rest, with tachycardia and sinus arrhythmia on exertion. In all cases physical activity greatly decreased. They also suffered from difficulty of thought and memory, photophobia, headache, abdominal distention, sensations of cold and heat, burning of the soles of the feet, numbness of legs, fatigue of the ocular muscles and depressed tendon reflexes. During the latter part of the experiments all patients developed a condition known as anorexa nervosa. At this stage thiamine was administered and in a few days the patients were back to normal. The conclusions reached by Williams and his associates may be summarized briefly as follows:

1. A dietary supply of 0.95 mg. of thiamine (285 international units) was associated with no clear evidence of nutritional deficiency. The average hospital diet contained about 0.85 mg. of thiamine. The feeling of well being was increased when a person takes a diet containing 2.0 mg. daily.

2. Patients tolerated thiamine deficiency longer in the summer than in winter and the less active patients tolerated a deficiency better than the active ones. The shortest time for the appearance of clear evidence of deficiency was twelve days: the longest forty-eight days.

3. The disease induced by restricted intake of thiamine differed from classic beriberi in that edema, cardiac dilatation and peripheral pain were not observed. They were led to question whether thiamine deficiency is responsible for the classic features of beriberi.

4. The early stage of the disease induced by restricting the intake of thiamine closely resembles neurasthenia; the later stage simulates anorexia nervosa.

Williams and his associates believe that states of thiamine deficiency should be looked for principally in cases in which the

diagnosis neurasthenia has appropriately been made.

James N. Brawner, M.D.

REFERENCE

1. Williams, Ray D.; Mason, Harold L.; Wilder, Russell M., and Smith, Benjamin F.: Observations On Induced Thiamine (Vitamin B_1) Deficiency In Man, Arch. Int. Med. 66: 785 (Oct.) 1940.

FOOTBALL KNEE

At the close of football season, when a resume of the injuries is considered, attention is turned to the football knee. This term is used to denote a recurring disability in the knee joint as a result of injury originally received in football. The term "trick knee" is also used. These terms are applied to those cases which have been chronic during the season or which, after the original injury, have failed to permit resumption of play with the usual period of rest and treatment with physiotherapy, supports and braces.

In spite of what we hear and read concerning the deemphysis of football more boys are playing the game each year. With the changes which have been made in recent years in the type of playing equipment, the surfacing of the fields, and the style of play, knee injuries are becoming more common. All-important playing fields are surfaced with soft thick grass. This requires that the players wear shoes with long sharp cleats in order to secure a footing. For the sake of speed many players wear the oxford type shoe with cleats instead of the high shoe. The shoes are all very light. These shoes serve their purpose but do not support the ankle and knee as did the old style shoes. The cleats become firmly embedded in the surface of the field and the stresses and strains of play are received directly by the ankle and the knee. The style of play is now the "open game" or "razzle dazzle." This requires much fancy running and stepping, with the players running and catching forward passes all over the field. This leaves the knee exposed to hard tackling and blocking without being very well supported by the playing equipment.

It wasn't so very long ago that when a player received a football knee he was considered out of football and other athletics forever. It was even considered that the boy had been made a cripple and semi-invalid for life by the game. However, parents, players and coaches have learned that with proper treatment a boy can be made fit again for football and other athletics, and even if the boy decides or is persuaded to give up strenuous athletics he does not have to go through life crippled with a football knee.

The diagnosis of a football knee is at times difficult and unless the diagnosis is fairly certain too much cannot be promised as in any other medical or surgical condition. The treatment is either conservative or surgical. The important part of the conservative treatment is a long period of rest. This does not mean a few weeks rest from scrimmage with daily laps around the field and other exercise to keep in condition for a game a few weeks off. It means absolute rest which usually requires a plaster cast and crutches, for one to two months. This is followed by physiotherapy to restore motion and the tone and strength of the surrounding muscles and ligaments. The conditions which may be cured by conservative treatment are principally partially torn lateral and cruciate ligaments, chronic traumatic synovitis and bursitis, fibrosis from bad bruises in the surrounding ligament or ligaments, and Osgood-Schlatter's disease found occasionally in the younger players. At times surgery is indicated in these conditions.

A torn or dislocated internal semilunar cartilage is the condition most often requiring surgery for cure of a football knee. Other conditions diagnosed in football knees requiring surgery are loose osteocartilaginous bodies, badly torn lateral or cruciate ligaments, fractures of the tibial spines, recurrent dislocation of the patella, and damage to the external semilunar cartilage. Immediately following the initial injury a definite diagnosis is made very easily or not at all. That is, the exact condition is very obvious or it will be masked by the pain, swelling, and muscle spasm. Conservative treatment is always indicated at this time except for one condition. This is with a locking of the joint which cannot be loosened by manipulation. Often the

boys appear for examination and diagnosis when all symptoms have subsided and very few significant signs are present. If the x-ray films are negative, which is the usual case, the diagnosis is difficult but can be made with a very careful history and examinations repeated on one or two different occasions.

While the chronic joint does not require operation as soon as the diagnosis is made it is advisable that operation not be deferred too long because with recurring intra-articular irritation a chronic synovitis or osteoarthritis is set up. Also it is to be remembered that the sooner the operation the sooner the player will be ready for play.

Following surgery is the time that the trainers play a very important part in the treatment. An attempt should be made with physiotherapy to gain motion and function progressively but gradually. This is especially true in the first six weeks after operation. If the treatment is applied too vigorously a longer period will be required to obtain the final result than if no physiotherapy had been used at all except by the boy himself.

The question is always asked, "When will the boy be able to return to athletics?" From the surgical viewpoint the condition is considered cured when there is a full range of motion in a painless joint with no evidence of atrophy above or below the joint. This is usually a period of four to six months after operation. The psychic element enters the picture. Some boys are ready for rough athletics three months following operation. Others become "bat shy" and are never able to engage in athletics requiring bodily contact. Some boys give up football but are just as good or better in other athletics such as baseball, basketball, or track.

Of course the best treatment for the football knee is to prevent it. Coaches and trainers have long known this and in addition to the early season conditioning about half the time of every practice session is spent in conditioning the players for the rough work. Leather and steel knee braces on every boy who plays football might prevent the injuries but there are many arguments against this practice. While we have football as it is today we will continue to have the football knee. These knee injuries are by no means confined to football. They occur in every form of athletics, industry, business and profession, and are even suffered by the housewife. One doesn't have to play football to receive a knee injury, but it helps.

JOE H. BOLAND, M.D.

WHAT YOU SHOULD KNOW ABOUT INFLUENZA

Influenza, one of the most widespread and destructive diseases of man, still remains unconquered, although a number of the great epidemic diseases have fallen before the determined technicians of medical science. Numerous factors are responsible for this lack of progress in the prevention and control of influenza. For example, the exact cause has not been determined for all types of influenza. The short period of development without recognizable symptoms permits the affected individual to continue his normal routine, thereby spreading the disease to many others before he is sick enough to go to bed. Isolation of such large groups is not practical. Finally, since immunity following infection is of short duration, one year or less, a significant proportion of the population is continuously susceptible to the disease.

What Causes Influenza

The cause of influenza is at present believed to be filterable viruses of different strains, one of which has been isolated. Viruses are active agents too small to be seen with any microscope. Various other types of bacteria may cause complications in the disease.

How Is Disease Spread

The virus is present in the discharges from the mouth and nose. Coughing and sneezing spray the infecting agent into the air. These small droplets of moisture may be inhaled by persons nearby. Articles freshly soiled with discharges from the nose and throat of sick persons may transfer the virus. There is no evidence that the virus is ever carried in drinking water or milk. *Man* is the carrier of influenza.

Symptoms of Influenza

Symptoms of influenza are observed within 24 to 72 hours following invasion of the body with the virus. Typically, it is a more severe infection than the common cold. Fever and general muscular pains in the back, head, and limbs develop and usually last about a week. "Flu" leaves the patient exhausted out of all proportion to the length of time he is ill.

The most serious and important complication following influenza is pneumonia, which may be severe and sometimes fatal. Other serious complications are infections of the ears or sinuses, and bronchitis.

Laboratory procedures have no practical value in determining the diagnosis of influenza with certainty. In its initial stages, influenza is frequently indistinguishable from the common cold.

Precautions to Observe

It is believed that there is more danger of spreading the disease from persons in the early stages of "flu" than from those ill enough to be in bed or those who are recovering. In any case, unnecessary contacts should be avoided. Since few, if any, can hope to escape contact, it is not rational to become panicky or to attempt to avoid infection in too elaborate ways. Experience in previous epidemics has taught some valuable lessons. The closing of public, parochial, and private schools has *not* been effective in checking the spread of influenza. Relatively simple hygienic practices and rules of life are the most helpful. The persons who try to keep on their feet and "stick it out" are those who contribute the greatest numbers to the death rolls. In their weakened condition, secondary invading germs gain a foothold and permit the development of serious complications.

In protecting himself from influenza, an individual can generally do as much as any one else can do for him, if not more.

What You Should Do Before Infection

1. During an epidemic, avoid needless contact with others, especially people who are coughing, sneezing, or sniffling.
2. Avoid exposure to inclement weather, but take advantage of as much open air and sunshine as you can.
3. Be sure that your home is well ventilated at all times; but avoid drafts.
4. Eat a well balanced diet; drink plenty of water.
5. Guard against fatigue; get plenty of rest and sleep.
6. Wear clothing suitable to the weather.

What to Do After Exposure

1. At the first sign of a cold and especially if you have fever—GO TO BED AND STAY THERE UNTIL YOUR DOCTOR SAYS IT IS SAFE TO GET UP. By so doing, you may prevent serious complications and check the spread of the disease to others.
2. Cover all coughs or sneezes with a handkerchief, preferably paper tissues which should be promptly burned.
3. Do not encourage visitors.

Do not indulge in self-diagnosis or self-treatment. Consult your doctor.

RUPTURED PRIMARY JEJUNAL ULCER

(Continued from Page 22)

I was called to operate on the patient. On examination I found his abdomen very rigid with general tenderness. Temperature 102 F., pulse 130, blood pressure 105/65. It was my opinion that this man had a ruptured duodenal ulcer and I operated immediately. On opening the peritoneal cavity, food particles and a ropy mucus fluid were seen, and a search for a perforated duodenal ulcer was begun. Failing to find it on the anterior surface of duodenum or stomach, I then opened the lesser sac and examined for posterior walls of stomach and duodenum. Still not finding the perforation I decided to trace the jejunum and ileum. About 12 inches from the ligament of Treitz I found the perforation and closed it by purse-string suture and further reinforced with a continuous transverse suture of linen. Wound was closed with drainage. Patient had rather stormy session for about four days, then made very satisfactory progress and left the hospital on twenty-first day after operation in good condition.

The place of the medical profession in the program of national defense and the medical mobilization of Canada are among the topics to be discussed at the Thirty-Seventh Annual Congress of the Council on Medical Education and Hospitals of the American Medical Association, to be held at the Palmer House, Chicago, Feb. 17 and 18, *The Journal* of the Association reports in its Dec. 7 issue.

The Journal *would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE PHYSICIAN'S PUBLIC HEALTH RESPONSIBILITY

For centuries physicians have recognized and shouldered the responsibility for the prevention and treatment of disease among their clientele. In recent years it has become the responsibility of private practitioners to assume the burden of aiding in the prevention of disease for the public in general. This is a tremendous obligation. However, it must be recognized that only the medical profession is in a position to determine the best means of attack on current, as well as future, public health problems.

In the minds of the public, local health departments are established for the benefit of the masses. However, physicians must realize that a very essential function of any local health department is concerned with aiding the practitioner in the solution of any problem or situation which affects the health of a community. The failure to utilize services of a local health department for the benefit of the public, as well as the physician personally, must in some instances be placed upon the shoulders of the private physician. However, in the vast majority of instances, the private physician has been the leader not only in the establishment of public health services, but in making possible their utilization to the fullest extent. Those physicians practicing in localities where health departments function adequately are cognizant of the many advantages that accrue from public health facilities, both to the public and to the medical profession. At present, full-time health departments are located in only one of every three counties in Georgia. For this reason many physicians have been denied the benefit of adequate public health service. In those counties without full-time health departments it should behoove the physician to use his influence and exert his efforts to establish this very necessary activity. In order to be able to discuss intelligently and to appreciate the merits of a health department, it is essential that the physician inform himself regarding the activities of the local health department, in order that he can fully visualize the benefits both to himself and to the public.

The Ellis Health Law provides for the establishment of local health departments following the recommendation of two successive grand juries. In order to secure favorable recommendations by the grand juries it is desirable that the physicians in their respective localities support the proposed establishment of public health departments. Experience has demonstrated that grand juries are more apt to accept the opinions of local physicians, and for this reason it is essential that each local physician know the merits of a local health department. The physician should be the leader, and not the follower. The physician should initiate the movement rather than fall in line when other civic minded groups have taken the lead.

Copies of the Ellis Health Law are available for all physicians, and may be secured from the Georgia Department of Public Health. It is recommended that each physician who has not already done so review thoroughly the provisions of the Act, in order that a complete understanding of the law be obtained, which will make possible an intelligent discussion of its provisions, when the need arises.

We are more fortunate in Georgia than we realize. We should remember that the public health program is the responsibility of the Medical Association of Georgia, because ten members of the State Board of Health were nominated by the ten district medical societies. We should also remember that the policies affecting the private physicians are reviewed by appropriate committees appointed by the President of the Medical Association, and that this insures the formulation of policies and plans which are not only adapted to the needs, but which are carried out in a manner that will benefit the profession. This is indeed a most satisfactory administrative arrangement. It is true that occasionally physicians object to public health activities. Investigations reveal, however, that in all instances it is the result of a misunderstanding or misinterpretation. The Georgia Department of Public Health maintains high standards of ethics, appoints only the best trained physicians, employs public health nurses with unusual ability, cooperates with the medical profession at all times, and promotes a most excellent public health program. Public health deserves the unanimous support of the medical profession. It is our duty to help expand public health facilities to meet the needs, and it is incumbent upon us to lend a helping hand whenever and wherever possible, not only from the standpoint of promotion, but in the maintenance of public health activities which we now have, and which are considered most satisfactory.

E. R. W.

The American Medical Association will hold its Ninety-Second Annual Session at Cleveland, Ohio, June 2-6, 1941.

The Medical Association of Georgia will hold its Ninety-Second Annual Session at Macon, May 13-16, 1941.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

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131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

Georgia State Nurses' Association and affiliated nursing groups in membership with the American Nurses Association.

FRIEDA GREFE, R.N., Savannah
President—1941

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GREETINGS TO THE MEDICAL ASSOCIATION OF GEORGIA, AND BEST WISHES FOR A SUCCESSFUL 1941 from Frieda Grefe, R.N., President, Georgia State Nurses' Association:

We are indeed glad to have this opportunity to tell the Georgia medical profession of the aims and activities of our organization, and will look forward to supplying monthly articles for the Nurses' Section of this JOURNAL.

For 14 years the Georgia State Nurses' Association has maintained State Headquarters in Atlanta and employs a full time executive secretary. The state membership is 1,810 which is the largest in the history of the organization.

The State operates on a unit system, being divided into 11 districts and 25 alumnae associations. The other State nursing groups function as a part of the main body. The State groups are units of National bodies.

Some of our main functions are:

To outline good business policies in order to maintain high standards of professional nursing service; to serve as a clearing house of authentic information pertaining to nursing and to serve the public in supplying professional information; to study the needs of the nursing field and the needs and problems of the individual nurse so that we may render a better nursing service to the public.

We proudly boast of a well-developed professional library which gives reference service to the public as well as to the members and other professional groups. Field service and speakers are available for any group, especially in professional guidance and where lectures on nursing service and nursing education are desired.

Our aim is to have an informed membership and to outline sound policies for professional activities. From headquarters are mailed special mimeographed letters, reprints and appeals to districts, alumnae, hospitals and special groups, giving them helpful information and enlisting their support of our program in keeping our members informed on professional matters.

Another way in which we inform our members is by annual field visits of our Executive Secretary. She visits the various alumnae and district associations and hospitals over the entire State, where she speaks at meetings and holds conferences with individuals and with groups of nurses.

Our two annual publications which are mailed to the members, are of great value. The Pre-Convention Bulletin announces the coming state convention and includes the program for the convention as well as other articles of current interest; the Convention Proceedings gives in minute detail all proceedings and activities of the convention with a list of officers and committee members.

Our program, briefly outlined, is to:

1—Secure state registration for all nurses.

2—Secure membership in our professional nursing organization.

3—Have every eligible nurse enroll in the American Red Cross Nursing Service.

5—Stimulate all nurses to continue their professional education.

6—Cooperate with the Nursing Council on National Defense of the American Nurses Association.

7—Establish professional registries and nurse placement services in line with policies of the American Nurses Association.

8—Secure a wider distribution of nursing service throughout the State.

9—Supervise and control subsidiary workers.

10—Promote plans for security of nurses in illness and old age.

We plan to bring these and other projects in detail to your attention in the coming issues of this JOURNAL.

In order to bring about efficient nursing service through the program as outlined here, it is of greatest importance that we have the continued cooperation and understanding of our problems by the medical profession.

The molars which are acquired at the age of 6, sometimes believed to be "baby" teeth, are actually the most important teeth of the lifetime set and should be carefully preserved, Constance J. Foster, Great Neck, N. Y., states in *Hygeia, The Health Magazine.*

These teeth provide the largest grinding surfaces and serve as corner posts for the mouth. If they are lost, the other teeth fall out of line and the facial contours may become badly disfigured. It has been discovered that the loss of even one permanent molar reduces the chewing efficiency of the mouth by about one-third.

PARTICIPATION OF THE MEDICAL DEPARTMENT OF THE ARMY IN THE 1940-1941 MILITARY TRAINING PROGRAM

Uppermost in the minds of all physicians is undoubtedly the question of National Defense and, at the present time, of the plan of the medical departments of the armed forces to meet the immediate two-fold problem of furnishing an adequate medical service to the men of our unprecedented peacetime Army and Navy, and of training the large number of Medical Department trainees who, at the expiration of their twelve months' military service, will pass to the Enlisted Reserve Corps and furnish the trained personnel required for mobilization in the event of a national emergency. The Surgeon General of the Army has furnished the following outline regarding the participation of the Medical Department of the Army in the 1940-1941 Military Training Program. It is felt that this timely article will be of great interest to the medical profession at large and of personal importance to those physicians whose participation in the Military Program is highly probable.

The total strength of the Army of the United States next Spring will be approximately 1,400,000. This represents a Regular Army of 400,000 officers and men, the National Guard of the several States Federalized as the National Guard of the United States, numbering 200,000 and citizens selected for military training during the coming twelve months—about 800,000 in number. The latter will receive their training in active units of the Regular Army and of the National Guard, in Regular Army inactive units activated for training purposes, in the numerous installations required for the overhead of these forces and in Enlisted Replacement Centers throughout the nine corps areas of the country.

The Medical Department is charged with providing adequate medical service for the entire Army of the United States at posts, camps, and stations within and beyond the continental limits of the United States. In each military station in the United States there will be a hospital with four beds for each 100 of the military population. The operating room, kitchen, messing facilities, and clinics in each of these hospitals will be of sufficient size to provide service for an additional one patient per 100 men so that in an emergency it will be necessary to construct only the additional ward buildings. Furthermore, there will be general hospitals suitably located throughout the United States to provide an additional one bed per 100 of the military population.

The provision of five per cent of hospital beds which can be rapidly expanded to six per cent may appear excessive when compared with hospitalization provided for the civilian population of this country. However, all of the military sick, including such cases as in civilian life are ordinarily cared for in their homes, must be treated in hospital since they cannot receive satisfactory care in the barracks. In addition, when young adults are brought together in large groups contagious and infectious diseases that spread rapidly under such conditions occur much more frequently than in civil life. Furthermore, sufficient beds must be provided for the care of the sick during the winter and spring seasons

of the year when there is always an excessive number of such cases.

Scattered throughout the large camps or stations there will be dispensary buildings and dental clinics for the infirmary care and dental treatment of the personnel. In addition, in each large camp there will be a medical headquarters, with properly qualified scientists for the general supervision of the medical activities, including the protection of the health of the troops, the careful inspection of food products, and the general supervision of the nutrition of the men.

The Medical Department will be charged with the training of the Medical Detachments and the Medical Department Units of the Regular Army and the National Guard, and with the instruction of the service personnel in hospitals and other installations. It is also responsible for the preparation of the trainees in Enlisted Replacement Centers, in hospitals and in service schools, who will receive there the individual Medical Department instruction which will permit their incorporation in organizations for further unit training.

The initial requirement will be approximately 6.5 doctors for each 1000 men in the military service. Rapid calculation will show that the total number for an Army of 1,400,000 men will be 9,100 doctors. Additional ones may be required, but in the interest of economy the initial procurement will be limited to the number stated. The 1200 physicians in the Regular Army and the 1100 in the National Guard are included in the total, leaving approximately 6800 physicians to be supplied by the Reserve Corps. There are now approximately 1500 Reserve physicians, leaving 5300 to be procured during the next few months.

Under the present Joint Resolution passed by the 76th Congress, the President is authorized to order into the active military service of the United States for a period of twelve consecutive months each, any or all members of any Reserve component of the Army of the United States, with or without their consent, to such extent and in such manner as he may deem necessary for the strengthening of the National Defense. If a sufficient number of officers do not indicate their availability for this service, Reserve officers must necessarily be ordered to duty without their consent. Additional appointments among physicians of draft age will increase the strength of the Medical Corps Reserve. However, it is apparent that a very large percentage of these officers must participate actively in the present program for preparing a portion of the country's man power for National Defense.

In establishing rosters from which officers will be ordered to duty, Corps Area Commanders and Chiefs of Branches have been instructed to circularize all Reserve officers under their assignment jurisdiction to permit them to state the amount of deferment desired and the cogent, pertinent reasons for such deferment in the event that they are not immediately available for military service. This action has been taken in view of the fact that a national emergency has not been declared by the Congress, nor has mobilization been ordered. The medical service of a training program, although essential to national preparedness, possesses none of the glamour of the same service during actual military operations; it is, however, equally important. Indeed, military training may, through the thoroughness of its preparation for war, materially assist in preventing the necessity of participation in military operations. It is realized, of course, that all officers would express their immediate availability in the event of war; many, however, feel that their services are not of national importance at the present time.

Both the economic and the rational utilization of medical officers is essential. It is planned that inasfar as possible qualified officers will be selected for assignment to duty with units and at installations according to their previous training and experience. Accordingly, selection must be qualitative as well as quantitative in order that the specific requirements of a modern medical service may be properly met. Officers selected for duty will be given the maximum possible advance notice of such action.

The annual base pay is increased at the rate of 5 per centum thereof for each three years of service up to 30 years. Full time will be computed for all periods during which they have held commissions as officers in the Army, Navy, Marine Corps, Coast Guard, Coast and Geodetic Survey, and Public Health Service, or in the National Guard or Naval Militia, the National Naval Volunteers, or in the Naval Reserve Force or Marine Corps Reserve, when confirmed in grade and qualified for all general service, and with full time for all periods during which they have performed active duty under Reserve commissions, and with one-half time for all other periods during which they have held Reserve commissions.

Physicians as a group will not be exempt from conscription for military training and service. Their deferment because of importance to civil communities is a function of the Local Draft Boards. Accordingly, it is difficult to approximate the number which will be inducted into the Army. Obviously, the training received by such draftees will be more appropriate and the services rendered the Army of greater value if the physicians who are eligible and qualified for appointment in the Medical Corps Reserve be commissioned in the Officers Reserve Corps for duty as medical officers, rather than continue their training as enlisted men.

In this connection the Surgeon General has suggested that the following points be brought to the attention of all Reserve medical officers:

1. When notified that you have been selected for active duty, submit at once the required report of physical examination. The disclosure of disqualifying defects prior to the issuance of orders may prevent a disruption of your practice or civil employment.
2. Orders issued will place you on active duty at your home or, if a temporary change of address has been submitted, at that location, and will direct you to report to a specific post, camp, or station for duty.
3. Travel to your station may be accomplished by automobile but no delay will be granted for that purpose above the customary time for travel by rail.
4. You will be reimbursed for travel at the rate of 8c a mile, based on the shortest usual railway route to your station.

5. Transportation for dependents to your first station will not be furnished by the Government. It is perhaps advisable that your family not accompany you since the housing problem at or within the vicinity of Army stations is frequently acute.
6. If you have no uniform and military equipment these may be purchased at your first station.
7. Pay and allowances are as shown in the following table:

		ALLOWANCES			
		Rental Allowance		*Subsistence Allowance (30 days)*	
Grade	*Annual base pay*	*With Dependents*	*Without Dependents*	*With Dependents*	*Without Dependents*
Colonel	$4,000	$120	$80	$36	$18
Lieutenant-Colonel	3,500	120	80	54	18
Major	3,000	100	60	54	18
Captain	2,400	80	60	36	18
First Lieutenant	2,000	60	40	36	18

Physically qualified graduates of approved schools of medicine who desire appointment in the Medical Corps Reserve for immediate active duty should make application to the Commanding General of the Corps Area in which they reside. Such applications may be submitted either before or after selection for military training and service, or after induction into the Army of the United States. No change in the classification of such applicants will, however, be made by local selective service boards, until the actual letter of appointment has been received.

Appointments in the Medical Corps of the Regular Army will, in all probability, continue as at present through competitive examinations of Reserve officers who have not passed the age of 32 years at the time of appointment.

The Surgeon General of the Army, through Lieut. Colonel George C. Durham, the representative of the Medical Department in the House of Delegates, submitted a request to that body at its last meeting in New York in June, 1940, requesting the assistance of the American Medical Association, in the classification and procurement of physicians for the Army. It was hoped in this way to procure the physicians required without disturbing too seriously the civilian medical service and at the same time to place the physicians enrolled in positions for which their previous training qualified them. The House of Delegates approved the request of General Magee and appointed a Medical Preparedness Committee. The U. S. Navy and the U. S. Public Health Service made similar requests.

Reference has been made to the action of the House of Delegates and to the working of the Preparedness Committee in previous issues of the *Journal*. The Preparedness Committee, the executive officers of the American Medical Association, the chairmen and members of the various States and local committees, have all given generously of their time and funds in this work. They have been of material assistance to the Surgeon General and Corps Area surgeons in the classification and procurement of Reserve Corps medical officers. They have generously offered their assistance in similarly classifying and procuring such physicians as may be required in addition to those in the Reserve Corps. Although the majority of appointments of additional Reserve officers for active duty at this time will be 35 years of age or under, a limited number of properly qualified physicians above this age will be required as chiefs of services of the many large hospitals to be established.

The history of our country has repeatedly shown that there is no more patriotic group than the American physicians. They have always responded generously to their country's call for assistance. At this time, although this country is not engaged in war, the National Preparedness Program requires an adequate medical service. Without it, the program will be hampered materially. In addition to the adequate care of the sick and protection of the health of our young men in the camps, the Medical Department must be able to train its personnel to act in conjunction with the troops of the other Arms and Services so that in time of battle, if unfortunately that time should come, it may be able to collect efficiently and evacuate promptly casualties that occur on the battlefield so that each one may receive as promptly as possible efficient medical care. Let us repeat, the success of the National Preparedness Program depends to a large extent upon adequate medical service. American medicine appreciates its obligations and will furnish a sufficient number of properly qualified physicians.

NEWS ITEMS

DR. G. K. CORNWELL, formerly of Milledgeville, has moved to Eastman and joined the staff of the Eastman Clinic.

OFFICERS OF THE MEDICAL STAFF of Emory University Hospital are: Dr. M. K. Bailey, president; Dr. A. V. Hallum, vice president; and Dr. Chas. A. Eberhart, secretary.

THE RICHMOND COUNTY MEDICAL SOCIETY met at the University Hospital, Augusta, November 28. Dr. Everett S. Sanderson and Dr. John H. Sherman discussed *Prevention, Diagnosis and Treatment of Tuberculosis*. The program is sponsored annually by the Department of Tuberculosis of the University of Georgia School of Medicine. Dr. L. N. Todd is director.

(Continued on Page 34)

WOMAN'S AUXILIARY : OFFICERS 1940-1941

President—Mrs. H. G. Banister, Ila.

President-elect—Mrs. Lee Howard, 625 East 44th Street, Savannah.

First Vice-President—Mrs. W. W. Chrisman, 112 Corbin Avenue, Macon.

Second Vice-President—Mrs. Fred Rawlings, Sandersville.

Third Vice-President—Mrs. D. Lloyd Wood, Dalton.

Recording Secretary—Mrs. Loren Gary, Jr., Shellman.

Treasurer—Mrs. W. Bruce Schaefer, Toccoa.

Corresponding Secretary — Mrs. L. S. Patton, Athens.

Parliamentarian—Mrs. J. E. Penland, Waycross.

Historian—Mrs. W. A. Selman, 760 Penn Ave., N. E., Atlanta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Exhibit Suggestions

Mrs. J. P. Holmes, of Macon, chairman of exhibits for the Woman's Auxiliary to the Medical Association of Georgia, has written to each county Auxiliary urging members to prepare an exhibit for the state convention, to be held in Macon May 13-16. The following from a list of exhibits at the recent national convention are given as suggestions for planned exhibits:

Scrapbooks, posters on legislation, posters showing growth, history, activities and progress, posters of activities or Auxiliary objectives, pastel map poster of activities, revolving cylinder with posters of activities, loose leaf book on medical economics, newspaper, soap carving of a Hall of Fame of doctors and men like Pasteur with cards of explanation, radio program, Braille exhibit, layette of garments made by members of Auxiliary, photograph of old medical instruments with history, teaching kits, book of 'Mother Goose on Quacks" (original), wood plaques with raised lettering on Student Loan, steeple chase illustrating struggle of basic sciences against diploma mill, and papers on Research in Romance of Medicine.

Third District

The Woman's Auxiliary to the Third District Medical Society met recently at the Ralston Hotel in Columbus. Guests were welcomed by Mrs. Francis Blackmar, of the Muscogee County Auxiliary, and Mrs. T. F. Harper, of Coleman, responded. The district manager, Mrs. W. G. Elliott, of Cuthbert, was in charge of the business session, when reports from Muscogee, Dooly, Macon, Terrell and Randolph Counties were given.

Officers for the coming year are district manager, Mrs. C. P. Savage, of Montezuma; district manager-elect, Mrs. J. L. Gallemore, of Perry; and secretary-treasurer, Mrs. Francis Blackmar, of Columbus.

State officers present were Mrs. H. G. Banister, of Ila, who talked on "Mobilizing for Service to Humanity"; Mrs. Lee Howard, of Savannah, president-elect, who talked on "Organization" and Mrs. G. L. Loden, of Colbert, chairman of health films, who asked that each county auxiliary sponsor at least two films. Mrs. Banister announced that she is offering $5 for the best visual report of the year's work. Dr. J. C. Patterson, of Cuthbert, president of the Medical Association of Georgia, gave a paper on "The Progress in the Practice of Medicine Since 1865." After adjournment, tea was served by members of the Muscogee County Auxiliary and later the guests were entertained by the doctors at a banquet.

Cobb County Auxiliary

Mrs. Eustace A. Allen, of Atlanta, immediate past president of the Woman's Auxiliary to the Medical Association of Georgia and third vice-president of the national group, talked on "Socialized Medicine" at the first regular meeting of the Woman's Auxiliary to the Cobb County Medical Society. At the meeting, held at the home of the president, Mrs. W. H. Perkinson, in Marietta, plans were formulated for meetings on the first Tuesday of each quarter and committees were appointed to serve for the year. Members present were Mesdames Ralph Fowler, Herbert Fowler, G. O. Allen, G. F. Hagood, Sr., Murl Hagood, W. H. Perkinson and Claude Mitchell, of Smyrna.

Bibb County Auxiliary

A questionnaire game similar to radio quiz programs was played at the recent meeting of the Woman's Auxiliary to the Bibb County Medical Society, held at the home of Mrs. C. C. Harrold in Macon, with Mrs. C. H. Richardson as cohostess. Mrs. J. L. King, acting as interrogator, asked questions about the auxiliary and national medical association. Members brought toys for the children's ward at the Macon Hospital. Christmas greens were used in the decorations and a burning plum pudding was served the guests. Mrs. J. P. Holmes, president of the Auxiliary, poured coffee.

Fulton County Auxiliary

Mrs. Walker L. Curtis, chairman of research in Romance of Medicine, gave a most interesting talk on the late Sir Wilfred Thomason Grenfell, the beloved physician of Labrador, at the December meeting of the Woman's Auxiliary to the Fulton County Medical Society. Mrs. Olin S. Cofer, president, presided over the meeting, held at Habersham Hall in Atlanta, and Mrs. Stephen T. Brown, program chairman, introduced the speaker. Routine reports were given and Mrs. Stacey Howell, chairman of the hospital committee, reported her committee would

give the children at Battle Hill Sanitarium a book shower at Christmas. Mrs. Allen Bunce gave a comprehensive report of the recent convention of the Woman's Auxiliary to the Southern Medical Association, saying that Mrs. Cofer was elected councilor from Georgia. Mrs. Luther Byrd, music chairman, Mrs. Paul McGee and Mrs. John Felder presented a beautiful program of Christmas carols, following which luncheon was served with Mrs. Dewey T. Nabors, chairman of ways and means, and her committee in charge.

NEWS ITEMS

(Continued from Page 32)

THE JACKSON-BARROW COUNTIES MEDICAL SOCIETY met at Jefferson December 2. Dr. W. T. Randolph, Winder, led a discussion on *Medical Preparedness.*

THE THOMAS COUNTY MEDICAL SOCIETY met in Thomasville on December 12. Dr. R. B. Greenblatt, Augusta, was one of the principal speakers.

DR. J. H. LAMM announces the removal of his offices to 1203 Medical Arts Building, Atlanta.

THE MUSCOGEE COUNTY MEDICAL SOCIETY met at the Ralston Hotel, Columbus, November 26. Dr. Jas. J. Clark, Atlanta, spoke on *The X-Ray Treatment of Infections.* Officers were elected for the ensuing year.

DR. W. H. GOODRICH, superintendent of the University Hospital, Augusta, announced that the Board of Trustees had appropriated $2,000 for the purchase of new equipment which will include electric steam tables, microscopes and one x-ray machine for examinations of tuberculosis patients.

THE WARE COUNTY MEDICAL SOCIETY met at the Phoenix Hotel, Waycross, January 3. The members were guests of the Waycross dentists at dinner. The program was in charge of Dr. B. H. Minchew. The subject discussed was *The Medical Profession in Defense Work.*

THE GEORGIA PEDIATRIC SOCIETY met in Atlanta, December 12. Officers elected for the ensuing year were: Dr. R. C. McGahee, Augusta, president; Dr. E. N. Gleaton, Savannah, president-elect; Dr. J. Harry Lange, Atlanta, vice president; Dr. Don F. Cathcart, Atlanta, secretary-treasurer. The principal speakers on the program were: Dr. Lee E. Farr, director of research, Alfred I. du Pont Institute, Wilmington, Del.; Dr. Samuel Z. Levine, professor of pediatrics, Cornell University Medical College, New York; and Dr. Edward F. Bland, instructor of medicine, Harvard Medical School and assistant physician of Massachusetts General Hospital, Boston, Mass. Other speakers on the program included: Dr. Allen H. Bunce, Atlanta, president-elect of the Medical Association of Georgia; Dr. C. W. Roberts, Atlanta, president of the Fifth District Medical Society; Dr. Chas. E. Rushin, Atlanta, president of the Fulton County Medical Society; and Dr. Mercer Blanchard, Columbus.

DR. CARTER SMITH, Atlanta, was elected president of the medical staff of Piedmont Hospital; Dr. Wm. H. Trimble, vice president; Dr. T. Sterling Claiborne, secretary.

DR. FRANK E. LAHEY, Boston, president-elect of the American Medical Association, delivered the Floyd Wilcox McRae Memorial Lecture in the Nurses' Home of the Crawford W. Long Memorial Hospital December 16 on *The Management of Gastric, Doudenal and Jejunal Lesions.* This is the second lecture given the Fulton County Medical Society by Dr. Floyd W. McRae, Jr., Atlanta, in memory of his father.

DR. J. K. HALL, Lyons, has been appointed to the staff of Governor-elect Eugene Talmadge with the rank of lieutenant-colonel.

DR. E. M. LANCASTER, Shady Dale, recently completed a post-graduate course at the University of Georgia School of Medicine, Augusta.

THE BIBB COUNTY MEDICAL SOCIETY held its annual stag banquet at Hotel Dempsey, Macon, December 17. Dr. Olin H. Weaver was toastmaster.

DR. M. B. COPELOFF, Atlanta, has been appointed a member of the State Board of Medical Examiners for a four year term by Governor Rivers.

If interested in an excellent country town to practice medicine, write the Secretary-Treasurer. Office space gratis.

DR. LON GROVE announces the association of Dr. Fred F. Rudder in the practice of surgery with offices in Suite 610 Medical Arts Building, Atlanta.

DR. H. B. BRADFORD, formerly of Pine Log, has moved to Cartersville and will have offices in the Howell-Quillian Clinic.

DR. M. A. FORT, Bainbridge, was elected president of the Southwestern Section of the Georgia Public Health Association at Quitman on December 12.

DR. J. REID BRODERICK, Savannah, was elected president of the staff of St. Joseph's Hospital; Dr. J. E. Porter, vice president; and Dr. D. J. McCarthy, secretary-treasurer.

THE STAFF MEETING OF EMORY UNIVERSITY HOSPITAL was held on January 6. Dr. Ed. F. Fincher, Atlanta, reported a case of *Parkinson's Disease;* Dr. L. Minor Blackford, *Ruptured Heart;* Dr. Stewart R. Roberts, *Lues of Heart and Lungs.*

THE MONTHLY STAFF MEETING of the Crawford W. Long Memorial Hospital, Atlanta, was held on January 7. Dr. Shelley C. Davis was installed as president. Dr. Thos P. Goodwyn and Dr. C. S. Jernigan reported a case, *Use of Metal in the Treatment of Fractures.*

THE JACKSON-BARROW COUNTIES MEDICAL SOCIETY met at the Barrow Hotel in Winder on January 6. Dr. Wm. A. Smith, Atlanta, spoke on *Acute Cerebral Conditions.*

COUNTIES REPORTING FOR 1941

Dougherty County Medical Society

The Dougherty County Medical Society announces the following officers for 1941:

President—R. D. McKenzie, Albany
Vice President—W. M. Feild, Albany
Secretary-Treasurer—I. M. Lucas, Albany
Delegate—J. A. Redfearn, Albany
Alternate Delegate—N. R. Thomas, Albany

Bulloch-Candler-Evans Counties Medical Society

The Bullock-Candler-Evans Counties Medical Society announces the following officers for 1941:

President—A. B. Daniels, Statesboro
Vice President—R. L. Kennedy, Metter
Secretary-Treasurer—L. H. Griffin, Claxton
Delegate—B. A. Deal, Statesboro
Alternate Delegate—J. M. McElveen, Brooklet

Brooks County Medical Society

The Brooks County Medical Society announces the following officers for 1941:

President—M. E. Groover, Quitman
Vice President—J. R. McMichael, Quitman
Secretary-Treasurer—Harry A. Wasden, Quitman
Delegate—A. B. Jones, Quitman
Alternate Delegate—L. A. Smith, Quitman

Turner County Medical Society

The Turner County Medical Society announces the following officers for 1941:

President—H. M. Belflower, Sycamore
Vice President—W. L. Story, Ashburn
Secretary-Treasurer—J. H. Baxter, Ashburn
Delegate—J. H. Baxter, Ashburn

Carroll County Medical Society

The Carroll County Medical Society announces the following officers for 1941:

President—B. C. Powell, Villa Rica
Secretary-Treasurer—D. S. Reese, Carrollton
Delegate—E. G. Kirby, Bowdon
Alternate Delegate—H. L. Barker, Carrollton

Glynn County Medical Society

The Glynn County Medical Society announces the following officers for 1941:

President—M. E. Winchester, Brunswick
Vice President—Webb Conn, Brunswick
Secretary-Treasurer—T. V. Willis, Brunswick
Delegate—T. W. Collier, Brunswick
Alternate-Delegate—Jas. M. Hicks, Brunswick

McDuffie County Medical Society

The McDuffie County Medical Society announces the following officers for 1941:

President—B. F. Riley, Thomson
Secretary-Treasurer—C. W. Churchill, Thomson
Delegate—Frank N. Gibson, Thomson

Telfair County Medical Society

The Telfair County Medical Society announces the following officers for 1941:

President—John T. Persall, Jr., McRae
Secretary-Treasurer—F. P. Harbin, Lumber City

Meriwether County Medical Society

The Meriwether County Medical Society announces the following officers for 1941:

President—J. A. Johnson, Manchester
Vice President—W. K. Kirkland, Manchester
Secretary-Treasurer—R. B. Gilbert, Greenville

Douglas County Medical Society

The Douglas County Medical Society announces the following officers for 1941:

President—R. E. Hamilton, Douglasville
Vice President—C. V. Vansant, Douglasville
Secretary-Treasurer—T. B. Taylor, Douglasville

Chattooga County Medical Society

The Chattooga County Medical Society announces the following officers for 1941:

President—R. E. Talley, Trion
Vice President—Mary M. McLeod, Trion
Secretary-Treasurer—W. B. Mitchell, Trion
Delegate—W. B. Mitchell, Trion
Alternate Delegate—N. A. Funderburk, Trion

Bartow County Medical Society

The Bartow County Medical Society announces the following officers for 1941:

President—W. B. Quillian, Cartersville
Vice President—T. Lowry, Cartersville
Secretary-Treasurer—A. L. Horton, Cartersville
Delegate—T. Lowry, Cartersville

Muscogee County Medical Society

The Muscogee County Medical Society announces the following officers for 1941:

President—W. Edward Storey, Columbus
Vice President—Arthur N. Berry, Columbus
Secretary-Treasurer—Roy L. Gibson, Columbus

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for 1941:

President—Howard Hailey, Atlanta
President-elect—Major F. Fowler, Atlanta
Vice President—Stephen T. Barnett, Jr., Atlanta
Secretary-Treasurer—J. G. McDaniel, Atlanta
Elected Trustee—D. Henry Poer, Atlanta
Elected Trustee—J. R. Childs, Atlanta
Judicial Council—O. O. Fanning, Atlanta

Terrell County Medical Society

The Terrell County Medical Society announces the following officers for 1941:

President—Guy Chappell, Dawson
Vice President—J. T. Arnold, Parrott
Secretary-Treasurer—J. C. Tidmore, Dawson
Delegate—J. C. Tidmore, Dawson

Tift County Medical Society

The Tift County Medical Society announces the following officers for 1941:

President—T. F. Little, Tifton
Vice President—C. S. Pittman, Tifton
Secretary-Treasurer—R. E. Jones, Tifton
Delegate—W. F. Zimmerman, Tifton

Georgia Medical Society
(Chatham County)

The Georgia Medical Society announces the following officers for 1941:

President—H. H. McGee, Savannah
President-elect—E. N. Gleaton, Savannah
Vice President—W. E. Brown, Savannah
Secretary-Treasurer—S. Elliott Wilson, Savannah
Delegate—C. F. Holton, Savannah
Delegate—H. J. Morrison, Savannah
Alternate Delegate—J. W. Daniel, Jr., Savannah
Alternate Delegate—M. J. Epting, Savannah

Tattnall County Medical Society

The Tattnall County Medical Society announces the following officers for 1941:

President—C. B. Walling, Collins
Vice President—G. W. Tootle, Glennville
Secretary-Treasurer—J. M. Hughes, Glennville
Delegate—A. C. Branch, Glennville
Alternate Delegate—L. R. Jelks, Reidsville

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1941:

President—W. A. Sewell, Rome
President-elect—Lester Harbin, Rome
Secretary-Treasurer—Warren M. Gilbert, Rome
Delegate—William Harbin, Jr., Rome
Alternate Delegate—Robert F. Norton, Rome

Dooly County Medical Society

The Dooly County Medical Society announces the following officers for 1941:

President—L. H. Bishop, Unadilla
Secretary-Treasurer—M. L. Malloy, Vienna
Delegate—E. B. Davis, Byromville

Cherokee-Pickens Counties Medical Society

The Cherokee-Pickens Counties Medical Society announces the following officers for 1941:

President—Jno. P. Turk, Nelson
Vice President—M. G. Hendrix, Ball Ground
Secretary-Treasurer—Robert T. Jones, Canton
Delegate—C. J. Roper, Jasper
Alternate Delegate—Charles R. Andrews, Jr., Canton

Randolph County Medical Society

The Randolph County Medical Society announces the following officers for 1941:

President—Loren Gary, Georgetown
Vice President—F. M. Martin, Shellman
Secretary-Treasurer—W. G. Elliott, Cuthbert
Delegate—Loren Gary, Jr., Shellman
Alternate Delegate—R. B. Martin, III, Cuthbert

Polk County Medical Society

The Polk County Medical Society announces the following officers for 1941:

President—Geo. M. White, Rockmart
Vice President—C. V. Wood, Cedartown
Secretary-Treasurer—John M. McGehee, Cedartown

Cobb County Medical Society

The Cobb County Medical Society announces the following officers for 1941:

President—M. M. Hagood, Marietta
Vice President—F. P. Lindley, Powder Springs
Secretary-Treasurer—W. C. Mitchell, Smyrna
Delegate—L. L. Welch, Marietta
Alternate Delegate—F. B. Clark, Austell

OBITUARY

Dr. Horace E. Evans, Perry; member; Atlanta School of Medicine, Atlanta, 1911; aged 56; died suddenly December 15, 1940, while driving his automobile when struck by a train at a crossing in Kathleen, Ga. He had practiced in Perry and the surrounding community since he graduated in medicine. Dr. Evans was a successful physician and had numerous friends. He was medical advisor for the Penn-Dixie Cement Company and a member of the Masons, Shrine and the Perry Methodist church. Surviving him are his widow, one son, H. E. Evans, Jr., Perry; one daughter, Mrs. Lucius Schnell, Atlanta. Funeral services were conducted in the Perry Methodist church.

Dr. Thomas Lamar Harris, Wrightsville; University of Georgia School of Medicine, Augusta, 1881; aged 78; died on December 13, 1940. He was a native of Washington County. He was one time mayor of Wrightsville, attorney, merchant and minister in addition to his practice of medicine. Dr. Harris practiced medicine in Washington and Johnson counties for half a century. Dr. Harris had numerous friends and was one time pastor of the Wrightsville Christian church, where his funeral services were conducted. Surviving him are his widow and a number of sons and daughters.

Dr. William Thomas Spears, Rutledge; Emory University School of Medicine, Emory University, 1884; aged 84; died suddenly on December 7, 1940. He was a native of Jasper County. Dr. Spears was active in civic work and had practiced medicine in Morgan and adjoining counties for more than a half century. He was a member of the Masons, Shrine and the Rutledge Methodist church. Surviving him are his widow, one daughter, Mrs. Mary Lee Martin of Atlanta. He was the father of the late Dr. Thomas B. Spears of Atlanta. Rev. W. C. Ivey officiated at the funeral services conducted at the Rutledge Methodist church. Interment was in the Rutledge cemetery.

Dr. Delon L. Murray, Dexter; University of Georgia School of Medicine, Augusta, 1911; aged 60; died in a private hospital at Dublin, December 11, 1940. He was a native of Lincolnton, Wilkes County. Dr. Murray had practiced medicine in Laurens and adjoining counties for 28 years. He was a member of the Methodist church. Surviving him are one brother and one sister.

Dr. W. A. Walden, Davisboro; Emory University School of Medicine, Emory University, 1893; aged 70; died November 20, 1940. He was a native of Jefferson County and had practiced medicine in Davisboro and surrounding community for 15 years. Dr. Walden was an honorable citizen and had many friends. Surviving him are

his widow, one daughter, Mrs. Paul Ivey of Detroit, Mich.; one sister and five brothers. Rev. Joseph M. Branch officiated at the funeral services conducted at the Davisboro Baptist church. Burial was in Aldred cemetery near Grange.

Dr. Luke Irdel Foster, Ellijay; member; Boston University School of Medicine, Boston, Mass., 1933; aged 33; died suddenly on December 10, 1940, of heart disease. He was a native of Huntsville, Tenn., and had practiced medicine at Ellijay for five years. In praise of Dr. Foster, the Ellijay Times-Courier wrote: "Dr. Foster was of a kind, sympathetic nature, ready to go at any time and to any place where his services were needed. He was very reasonable in his charges for services, especially to the poor. Money was not the main object with Dr. Foster. His whole heart was wrapped up in his work and the relief of suffering humanity, no matter what their circumstances might have been. Dr. Foster was loved by all and his sudden passing has caused genuine sorrow throughout the entire county. Surviving him are his widow, his father and mother, Dr. and Mrs. J. I. Foster, and a sister, Miss Christine Foster, all of Huntsville, Tenn. Rev. Frank Cochran and Rev. W. L. Jolley officiated at the funeral services conducted at the Watkins Memorial Methodist church. Burial was in the city cemetery of Huntsville, Tenn.

Dr. Charles Floyd Griffith, Griffin; member; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1908; aged 56; died suddenly at his home on January 1, 1941. He was born in Cleveland, Tenn., and received his literary education in the schools of Tennessee. Dr. Griffith served as an intern in Grady Hospital, Atlanta, and began the practice of medicine in Milner. He moved to Griffin in 1917 and continued his practice in Spalding and adjoining counties. Dr. Griffith made friends readily and was one of Griffin's leading citizens. He was a member of the Spalding County Medical Society, Masons, Shrine and the First Baptist church. He served on the State Board of Medical Examiners for twelve years. Surviving him are his widow, one brother, John H. Griffith, and one sister, Mrs. Wilbur Brown, all of Griffin. Dr. J. B. Turner and Rev. B. Frank Pim officiated at the funeral services conducted at the First Baptist church. Interment was in Oak Hill cemetery.

IN MEMORIAM

E. C. McCurdy, M.D.

Dr. E. C. McCurdy, Shellman, was born in Carroll County July 9, 1869. He died at Shellman June 2, 1940.

Dr. McCurdy attended high school in Villa Rica, Ga., and at an early age studied telegraphy and served the Southern Railroad for several years and was a most valuable employee.

After reaching manhood he decided to study medicine, having had the desire from early youth to become a doctor.

He attended medical college at the old Atlanta College of Physicians and Surgeons (now Emory University), graduating in 1902. After graduation, he came to Randolph County and practiced medicine at Carnegie for about six months, then moved to Shellman where he practiced for thirty years. He did post-graduate work in Baltimore and New York.

On Dec. 26, 1906, he was married to Miss Alma Haddock of Brooksville, who survives him.

By close attention, hard work, and the love he had for his profession, he was a most successful physician and business man.

He was a very interested and enthusiastic member of the American Medical Association, the Medical Association of Georgia, Third District Medical Association, and the Randolph County Medical Association. He was a well loved member by reason of the fact that he loved the profession and the things for which it stands. He was always full of wit and humor and even after his health failed he still had a fine nature and his wit was always uppermost.

Whereas, God in His wisdom has removed him from among us and carried him to a place of rest and beauty, therefore

Be it resolved, That we shall ever cherish his memory and remember his words of wisdom and his kind and cheerful disposition.

Respectfully submitted,
Randolph County Medical Society,
W. G. ELLIOTT, M.D., Secretary.

W. W. Binion, M.D.

Dr. W. W. Binion was born Aug. 20, 1861, and died Aug. 13, 1940, in his eightieth year. He came of a long lived family, his father, the Rev. M. B. L. Binion, of Terrell County, Ga., having lived to be ninety years old.

He was married twice and had four children.

He was educated in the schools of Terrell and Randolph Counties and was graduated in medicine in 1885.

He came back to Randolph County to practice medicine and practiced for over fifty years in this county. He was the last of the old school of physicians whose unselfish devotion to duty, high ethical standards, and generosity that he would inconvenience himself any time for the whim of his patients.

He was a man not only of ability, but of availability, as he was available night and day for over fifty years to his patients; it mattered not whether they paid him.

He was a very public spirited man, and at one time he is said to have been the most valuable citizen of Randolph County. Once, when a storm had destroyed part of Cuthbert, he sent all of his hands and mules into town for several days to clear the debris; this sort of thing was characteristic of him.

He was very kind and gentle and never blamed any one; no one ever saw him mad. He was so adverse to finding fault that he was accustomed to call a gangrenous appendix just a faulty appendix.

His life of unselfish devotion to his profession should be a benediction to us, and Robert Louis Stevenson must have had him in mind when he wrote the following:

"There are men and classes of men that stand above the common herd, the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarelier still the clergyman, the physician almost as a rule. He is the

flower of our civilization and when that stage of man is done with, only to be marvelled at in history he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage.

"So it is that, he brings aid and cheer into the sick room and often enough, though not so often as he desires, brings healing."

In his passing the Randolph County Medical Society has lost a valued and loyal member, the people a true friend, and the State of Georgia a citizen of the highest ideals.

Randolph County Medical Society,
W. G. ELLIOTT, M.D., Secretary.

RAYMOND B. KICKLIGHTER, M.D.

In the death of Dr. Raymond B. Kicklighter, which occurred Tuesday, October 29, 1940, the Tattnall County Medical Society lost one of its most faithful members, and the medical profession one of its most devoted practitioners.

Dr. Kicklighter, native of Glennville and son of the late Mr. and Mrs. Hampton Kicklighter, received his medical education at the University of Georgia, and after two years—one spent in Macon and one in Phoenix, Arizona—he came home to live and to practice his profession. He was noted for kindness and devotion to duty.

He was sorely afflicted for a long while before his death. During the time, while he was in a hospital, he was cheered by the kindness and love of his wife, who had been Miss Lucile Jones of Macon, and of his son, Richard. They were both with him when he died in a hospital in Oteen, N. C. His body was brought to Glennville for funeral and burial. He sleeps in the churchyard of his parents.

Dr. Kicklighter, who was 47 years old, was a World War veteran, and a member of Tattnall Post Number 95, American Legion. The organization regarded him as one of its most active members, and he certainly was one who believed implicitly in the aims of the order. It is worthy of note that, only a few weeks before his death and while he was extremely low, he sent money to renew his membership for another year.

Not only did he take a great interest in the Legion, but he was deeply interested in other civic movements, being a member of the Senior Chamber of Commerce in Glennville.

He was greatly beloved by the public, and especially by those who received the benefit of his medical service. Glennville regarded him as one of its most substantial citizens, and shall miss him greatly.

Respectfully submitted,

J. M. HUGHES, M.D.
A. C. BRANCH, M.D.
Committee, Tattnall County
Medical Society.

The within and foregoing resolution on the death of Dr. Raymond B. Kicklighter was unanimously adopted at a meeting of Tattnall County Medical Society held in Reidsville, Georgia, on this 13th day of November, 1940.

J. M. HUGHES, M.D.
Secretary, Tattnall County Medical Society.

WILLIAM EARL HUTTO, M.D.

Dr. William Earl Hutto was killed in an automobile accident near his home at Montrose, Miss., Saturday, Aug. 31, 1940.

Dr. Hutto was born April 12, 1904, in Montrose, Miss., the son of Mr. and Mrs. Wm. P. Hutto. His preliminary education was received at the Mississippi Conference Training School at Montrose and the University of Mississippi from which he received his Bachelor of Science degree in 1929. His medical education was obtained at Emory University, from which he was graduated in 1931. Following his graduation he interned at East Mississippi State Hospital at Meridian, Miss., Crawford W. Long Memorial Hospital, 1930-1931, and at Grady Hospital 1931-1932 and St. Joseph's Infirmary, Atlanta. At the last named place he was resident for two years. It was during our internship together at Grady Hospital where I (F. C. H.) knew him so intimately that I learned to love him for his true virtues. He began general practice in Atlanta in 1934 where he had practiced since.

Dr. Hutto joined the Fulton County Medical Society January, 1935. He was also a member of the Medical Association of Georgia and the American Medical Association. He was on the staff of Crawford W. Long Memorial, Henry Grady Memorial, Georgia Baptist Hospitals, St. Joseph's Infirmary and The Atlanta Tuberculosis Association.

He was a Captain in the Medical Reserve Corps of the United States Army and had spent six weeks examining recruits for the reserve corps just prior to his death.

Dr. Hutto was a member of the Methodist Church. He was a member of the Theta Kappa Psi Medical Fraternity. He also belonged to the Junior Order of American Mechanics.

His untimely death was a shock and grief to his friends and associates. His high ideals, his courteous but unassuming manner gained for him the admiration and respect of those who knew him. He was an ethical and highly respected physician. He gave freely of his professional services to the needy and responded to any duty required of him by the Medical Society. His sudden death cuts short a life which promised much to humanity and to the medical profession.

He was tall of stature, neat in appearance and enjoyed excellent health.

He is survived by his mother and a sister, Miss Frances Hutto, of Montrose, Miss., and one brother.

Be It Resolved: That we, his associates, deeply regret the passing of one of our beloved and most capable members, a man who, because of his wonderful personality, was loved by all who knew him.

Further, that his death is a distinct loss to this Society and the medical profession.

Further, that a copy of these resolutions be spread on

the minutes of this Society and a copy, with expression of our deepest sympathy, be sent to his family.

Fulton County Medical Society
Farrish C. Holden, M.D., *Chairman*
Major F. Fowler, M.D.
Hulett H. Askew, M.D.
Committee.

George Massalon Murray, M.D.

On Sept. 14, 1940, Dr. George Massalon Murray, as he lay sleeping in the early hours of morning received a call. His spirit answered, "Here am I, Lord," but his body was still. Dr. Murray had made his last call.

To many of his confreres, he was a quiet, studious, unassuming fellow-practitioner with a soft voice, a genial smile, an orderly hearing, and a meticulous regularity in all his appointments. To his more intimate friends, he was much more. He was a profound student, a research worker in medicine. He loved his microscope, and delighted in proving his theories. He had his hobbies, and derived unusual pleasure from his workshop, where he built boats, or manufactured some surgical instrument with the skill of an artisan. He read his "Field and Stream" with the same zest that he read his medical journals, and occasionally contributed an article on some timely topic, especially the raising of bird dogs.

Dr. Murray's patients will miss him most! He was painstaking almost to a fault, especially to the aged did he love to minister. Many the time he had fanned the flickering spark of life, to see it warm again in health.

Dr. Murray was born at Wetumpka, Ala., Aug. 9, 1874. He was graduated in medicine from the University of Virginia in 1909. He had passed medical examinations in Georgia, Alabama, Florida and Maine. Following his internships he came to Atlanta in 1913 where he had practiced since. His practice was limited largely to obstetrics and gynecology, but he had for years done some excellent work on malaria, on which he had written numerous papers.

He was a member of the Fulton County Medical Society, the Medical Association of Georgia and a Fellow of the American Medical Association. He was a memher of St. Luke's Episcopal Church, the Phi Beta Pi fraternity and Knights Templar Mason.

He was married on June 22, 1918, to Miss Corrie Belle Dawkins of Spartanburg, S. C. Their devotion to each other was beautiful; they were sweethearts all the way. Dr. Murray often talked of a vision he had for his declining years. He had secured several hundred acres of wooded hills overlooking the mirrored banks of Lake Burton. He hoped to estahlish a playground where he could use his boats, his rods and reels, his fine guns; or possibly establish a convalescent home, where he would direct the quests for health and happiness among the hills and dales of North Georgia.

But alas! Like a tree he was cut down and answered the call of his Master.

Whereas, the Fulton County Medical Society feels the loss of one of its staunchest memhers,

Be it resolved: That we spread this record upon our minutes, and that a copy be sent to his beloved wife.

W. A Selman, M.D., *Chairman.*
O. H. Matthews, M.D.
J. W. Landham, M.D.

Pleasant Leonidas Moon, M.D.

The sudden death of Dr. Pleasant Leonidas Moon on Sunday, Sept. 22, 1940, removed from our midst one of our most beloved members. He was visiting his son, Dr. P. L. Moon, Jr., in Pierson, Fla., when he was stricken with coronary thrombosis from which he died immediately.

Dr. Moon was born in Cartersville, Georgia, April 12, 1869. He was graduated in medicine from the Atlanta Medical College in 1897. He was also graduated in pharmacy in 1898. He began private practice at once and enjoyed the practice of medicine for 43 years in Atlanta. He was truly a family doctor with no desire for specialization. He rarely ever in these 43 years left his patients for even a short vacation. His life was devoted to his practice.

In 1904 he was appointed by Dr. Len G. Broughton as the first anesthetist to the Tabernacle Infirmary, the parent institution of the present Georgia Baptist Hospital, holding this position for fifteen years. Those were the days when anesthetic agents consisted of chloroform and ether. Nitrous oxide gas came into use about that time. Then, the average operation lasted three or four hours or longer, and the majority of the operations at the Tabernacle Infirmary were either charity or part charity, but Dr. Moon patiently rendered the required service, but collected very little for it.

In 1902 he married Miss Annie E. Lane of Temple, Georgia. He is survived by his widow and his son, Dr. P. L. Moon, Jr., and a daughter, Mrs. H. A. Brown of Cornelia, Georgia.

He was as unassuming as it was humanly possible for anyone to be, but one of the highlights of his career was when the Georgia Baptist staff honored him with a dinner and placed a pen and ink sketch of him and his horse and buggy on the front of the hospital publication "Our Chart." Quoting from *The Chart,* "He drove a little bay pony by the name of Doris to a doctor's phaeton and it was a familiar sight to see Doris hitched to the post in front of the old hospital building on Luckie Street. Dr. Moon paid $60.00 (sixty dollars) for Doris, drove her for four years and sold her for $100.00, which might lead one to think that perhaps Dr. Moon's ancestors were either Irish horse-traders or Scotch. Dr. Moon was somewhat venturesome for after selling Doris he invested in the first model T Ford automobile ever sold in Atlanta, and he has been faithful to the Ford ever since and is still driving one, though a late model.

"Dr. Moon is not a Baptist; he is a faithful backsliding Methodist, and he is one moon who has never heen full, no not even half full; in fact, he has never even been fat."

The above was a happy occasion for him and this was an outstanding example of receiving your flowers

while living. Dr. Moon enjoyed this and loved his colleagues for this honor. He can know nothing about what we are reading and thinking of him tonight. However, to have known him was to have admired him. He had the unusual name of "Pleasant." He typified the name. We doubt if anyone ever saw him mad or even ruffled. He had a pleasant manner, a lovable disposition.

Dr. Moon, besides his practice of medicine, found time to serve as councilman from the old second ward in 1922 and 1923, and as alderman from 1924 to 1930. Among the boards he served on are included parks, fireman, police, finance and city hall and board of health.

His was an active life, going night and day to see sick people, regardles of whether he could expect any remuneration. His patients loved him, they trusted him and knew him to be a conscientious, sympathetic doctor, a Christian gentleman. When payment was possible, his requests were moderate. His service to the destitute sick was probably incalculable. His life was filled with constant devoted service to his fellow men.

He was a member of St. John Methodist Church and served as one of its stewards for 40 years and was chairman of the board three times, and at the time of his death he had been chairman of finance committee for fifteen years. He was sometimes called "the praying doctor" because of his devoutness. He was a consecrated Christian and his life and his practice exemplified these virtues. The respect and love borne him were attested by the large number attending his funeral held at St. John's Church and the numerous beautiful floral offerings.

His inherent qualities of integrity and wholesome character caused him to be loved by a host of friends and patients who bemoan the passing of this ideal, typical family physician.

Shakespeare said, "Some are born great, some achieve greatness; and some have greatness thrust upon them." Dr. Moon was born great. He lived greatly good and we believe he had waiting for him a great reward.

We shall miss him. He sought no honors. He only asked to serve. But we shall never think of him except to think of him as one who bore no malice, no jealousy, only a deep sympathy and love for his fellow man, and a zeal to serve his Master. What more could be said of any man?

Whereas, the Fulton County Medical Society has lost a valued member, and

Whereas, those who knew him and loved him have lost a good doctor, friend and counsellor, therefore

Be it Resolved, That this inadequate sketch of his life be spread upon the minutes of the Society, that our deep and sincere sympathy in their loss he extended to his wife, son and daughter, and that a copy be furnished THE JOURNAL of the Medical Association of Georgia.

C. A. RHODES, M.D., *Chairman*
C. G. MCCAY, M.D.
T. C. DAVISON, M.D.

THE RICHMOND ASSEMBLY OF THE SOUTHEASTERN SURGICAL CONGRESS

The next Post Graduate Surgical Assembly of the Southeastern Surgical Congress will be held at Richmond, Va., March 10, 11, 12, 1941.

The following prominent doctors have accepted invitations to address the Assembly:

ALABAMA—Dr. James R. Garber, 1117 S. 22nd St., Birmingham, Ala.; Dr. James O. Morgan, 232 Broad St., Gadsden, Ala.

FLORIDA—Dr. Robert B. McIver, 208 Laura St., Jacksonville, Fla.

GEORGIA—Dr. Edgar F. Fincher, 384 Peachtree St., Atlanta, Ga.; Dr. William G. Hamm, 384 Peachtree St., Atlanta, Ga.; Dr. Virgil P. Sydenstricker, University Hospital, Augusta, Ga.; Dr. Everard A. Wilcox, 1345 Greene St., Augusta, Ga.

ILLINOIS—Dr. Frederick H. Falls, 30 N. Michigan Blvd., Chicago, Ill.

KENTUCKY—Dr. Irvin Abell, 321 West Broadway, Louisville, Ky.; Dr. R. A. Griswold, 437 Blakenbaker Lane, Louisville, Ky.; Dr. J. Duffy Hancock, 516 Brown Bldg., Louisville, Ky.; Dr. Carl C. Howard, Times Bldg., Glasgow, Ky.; Dr. Fred W. Rankin, 271 W. Short St., Lexington, Ky.

LOUISIANA—Dr. Conrad G. Collins, 3439 Prytania St., New Orleans, La.; Alfred B. Longacre, Tulane Univ. Schol of Med., New Orleans, La.

MARYLAND—Dr. Charles F. Geschickter, Baltimore, Md.

MASSACHUSETTS—Dr. Frank H. Lahey, 605 Commonwealth Ave., Boston, Mass.

MICHIGAN—Dr. Elisha S. Gurdjian, 1553 Woodward Ave., Detroit, Mich.

MINNESOTA—Dr. Greshom J. Thompson, The Mayo Clinic, Rochester, Minn.

MISSISSIPPI—Dr. Harley R. Shands, 319 E. Capitol St., Jackson, Miss.; Dr. Murdock M. Snelling, 2505 14th St., Gulfport, Miss.

NEW YORK—Dr. Bradley L. Coley, 140 E. 54th St., New York City, N. Y.

NORTH CAROLINA—Dr. Parker C. Hardin, 210 Secrest Bldg., Monroe, N. C.; Dr. Byrd C. Willis, Rocky Mount, North Carolina.

Names of other speakers omitted for lack of space.

WALGREEN DRUG COMPANY

The Walgreen Drug Company opened its new store number 3077 on Peachtree Road in Buckhead, Atlanta, January 15. Mr. R. M. Prince is manager. He and his associates will be glad to serve you at all times. Visit the store or phone CHerokee 2168.

I want a position in a doctor's or dentist's office. Two and one-half years' nurse's training, eleven months' office experience. Employed at present. Try me for four weeks. If I prove unsatisfactory, I will expect only two weeks' salary and will consider myself dismissed. Call MA. 9686 between 5-7 p.m., Jan. 20-27, 1941.

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CRANIOCEREBRAL TRAUMA

R. Frank Slaughter, M.D.
Augusta

Conflicting methods of teaching of the treatment of craniocerebral trauma in various institutions warranted that an outlined summary of the methods employed at the University Hospital, Augusta, be presented to our students and graduates with the results obtained by these methods. We continue to stress the fact that there is no routine treatment of head injury. Every patient is treated according to the physiologic and anatomicopathologic changes presented. If satisfactory results are not obtained, operative treatment is undertaken if the physiologicopathologic changes indicate its possible help. We stress the importance of conservative treatment and the proper use of lumbar puncture. Dehydration is not used very extensively and is used in most cases only during the first twenty-four hours. The importance of thorough and early debridement, without drainage, of compound fractures is adequately shown as well as bilateral trephines for suspected subdural hemorrhage. The following outline is given to students and all house officers and applied to all cases admitted:

I. Craniocerebral Trauma

A. *General Consideration*

Due to the fact that the skull is composed of two types of bone, membranous bone in the vault and cartilaginous bone in the base, cranial trauma to the vault is not so serious as trauma to the base. The bone of the vault, having two tables, will crack like an egg shell and catch foreign particles between the edges, but will not cause great damage to the brain. The cartilaginous bone of the base, being one structure and usually thin, cracks irregularly and runs toward the paranasal sinuses and foramina of the base. Great damage to the important structures of the base of the brain is often caused in this manner. The venous sinuses of the base which often communicate with the outside are sometimes torn. Fractures of the vault are easily seen by x-ray examination; fractures of the base are rarely seen, and it is poor judgment to x-ray the patient in an effort to find them.

The most common injury to the brain is concussion. It is caused by a slight blow to the head, rendering the patient unconscious for a few moments. Consciousness soon returns and the patient has no sequelae, neurologic or demonstrable on lumbar puncture. Concussion is probably caused by a "molecular derangement" within nerve cells or to a reflex vasomotor disturbance.

The more severe damages to the brain are often caused by contrecoup injury. This type of injury occurs when the patient's head is in motion at the time of the injury. When the blow occurs the brain lags behind and comes in direct contact with the aftcoming skull, causing great damage to protruding points. In this way when a blow occurs at the back of the head most of the damage is done to the frontal and temporal poles of the brain. If the blow is on the left side the damage is greatest on the right temporal and frontal. This type of injury is the most severe of all cranial trauma. The injury caused by a direct blow is usually less severe.

Generally speaking, the length and depth of unconsciousness is a reliable sign of the amount of damage that has been done to the brain. Patients who regain consciousness in twenty-four hours usually have a very mild convalescence, while those with

Department of Neurosurgey, University Hospital and the University of Georgia School of Medicine, Augusta.

prolonged periods of unconsciousness have a stormy course. The loss of consciousness, followed by consciousness, followed by a second distinct loss of consciousness—that is to say, when there is a "free interval" of consciousness usually means that the patient has an extradural hemorrhage, a subdural hemorrhage or hydroma, or a subcortical hemorrhage. One should never forget that such a clear interval is a frequent result of the administration of morphine. Morphine causes a marked cerebral edema and is also a medullary depressant. Following the administration of morphine conscious patients with head injury become unconscious and go into vasomotor collapse, medullary failure and death. Patients who have shown the "free interval" will often disclose on supra-orbital pressure a facial weakness or a weakness of one arm and leg by trying to remove the noxious stimulus. Observation will usually show also that they move one side more than the other.

Varying reflexes usually mean a lacerated brain with cerebral edema, while a patient who has shown equal reflexes on admission and twenty-four to forty-eight hours later shows unequal reflexes and a weakness of the side is usually an operative case.

A large, fixed, dilated pupil on one side with an increase in reflexes and a weakness on one side indicates an extradural or subdural hemorrhage. Small, pin-point pupils with no morphine indicate a hemorrhage in the pontine region. Unequal pupils that react to light and accommodation indicate much cortical damage or small hemorrhages in the brain stem.

Very restless patients with slight increase in temperature, rapid pulse and respiration, and generalized neurologic signs, usually suggest multiple punctate hemorrhage through the brain with or without laceration of the cortex and subarachnoid hemorrhage. They usually show increase in spinal fluid pressure and require watchful waiting and treatment of the intracranial pressure. A minimum of 1500 cc. of fluid is given each twenty-four hours.

B. *Classification of Craniocerebral Injury*

1. Injury to the scalp, or lacerations.
2. Injury to bone.
   (a) Simple fractures.
      (1) Vault.
      (2) Base.
         (a) Middle fossa, (b) Anterior fossa, (c) Posterior fossa.
         (These are manifested by: (a) bleeding from the ear or a "Battle's sign" which consists in ecchymosis behind the ear on the affected side; (b) ecchymosis about the eyes with bleeding from the nose or cerebrospinal fluid leakage through the nose; (c) marked unconsciousness, pulse and respiration changes, decerebrate rigidity and pin point pupils).
   (b) Simple depressed fractures (usually egg shell).
   (c) Compound depressed fractures.
3. Injury to the brain.
   (a) Concussion (momentary loss of consciousness with no sequelae).
   (b) Contusion and edema of brain (slightly bloody fluid with increase in pressure).
   (c) Laceration, contusion and edema of brain (grossly bloody fluid with increase in pressure).

C. *Management of Craniocerebral Injury*

When the patient is brought into the emergency room with a head injury it is important to be sure that he is warm and that he is not handled excessively until there is opportunity to determine his condition. Next the blood pressure is taken. If he has a fast, weak, thready pulse, subnormal temperature, and a low blood pressure, the patient is in traumatic shock, and 100-300 cc. of 50 per cent sucrose should be given intravenously by the drip method. Subcutaneous fluid would be of no avail. If the shock is severe, multiple fractures should be suspected and a blood transfusion ordered immediately. After the patient is out of shock he should be examined for injury elsewhere. The long bones and the pelvis are frequent sites of fracture in severe shock. The chest is examined for subcutaneous air and fractured ribs. The abdomen is examined for ruptured viscera, such as the liver or spleen, which are frequently seen. If there is an injury to the shoulder or clavicle and some stiffness of the neck a fractured cervical vertebra should be suspected and an immediate x-ray examination ordered. This is a frequent finding. The bones are roughly splinted and the patient is sent to the ward with instructions for no morphine, and no seda-

tive at all unless he becomes absolutely unmanageable. If sedatives are necessary chloral hydrate, sodium bromide or paraldehyde rectally is used. If immediate sedation is necessary, sodium luminal is given intravenously. The pulse, respiration and blood pressure are to be taken every fifteen minutes to gain information as to the state of the intracranial pressure increasing pulse pressure means increasing intracranial pressure with cerebral anoxemia and this must be treated. The nursing staff must be reminded each time that it is urgent to inform the surgeon of any change in these observations. Sudden changes in pulse and respiration indicate emergency treatment at any hour. This is well known but must be re-emphasized on each occasion if unnecessary disasters are to be avoided. Ice caps are applied to the head since this frequently helps make the patient quiet. If there is pulmonary congestion the head should be lowered and the patient should be turned on his side to allow for drainage.

After the patient has been in the ward for several hours a lumbar puncture is done. This is the time at which the intracranial pressure will be increasing because of edema and hemorrhage; if increased it should be reduced. The venous bleeding caused by the injury will by this time have ceased. Reduction of intracranial pressure will further mitigate venous congestion and bleeding. More sucrose may be given at this time if needed. A thorough neurologic examination is now made and recorded.

It may be well at this point to remind the reader that often the only person who can give a history is the person who brought the patient to the hospital. The history is most important because the patient may have been conscious after the accident on the way to the hospital though unconscious before he arrives at the emergency room, or when the examiner first saw him. The history should be taken from this person or frequently the "free interval" will be missed.

The subsequent treatment of such patients, those with simple contusion or laceration of the brain, is watchful waiting. The neurologic examination should be repeated daily and the findings recorded. If there is a progression of localizing neurologic signs or if there are convulsions, then surgical intervention is indicated. If the patient improves progressively, treatment is continued. Each day a lumbar puncture should be done until the pressure is below 200 for two successive days. Each patient should have at least 1500 cc. of fluids a day. If the spinal pressure remains high, moderate dehydration should be continued; otherwise it should be discontinued after thirty-six hours. If the patient continues to be unconscious after five days and there are bilateral or unilateral neurologic signs, a bilateral trephine should be done under local anesthesia for diagnostic purposes. If the pressure is high at this time and no hematoma is found, a ventriculogram is done and if this is negative the ventricles are repeatedly punctured to relieve the pressure. If the patient is unconcious over this period of time, nasal feedings are indicated and he should be turned regularly every hour. If there is congestion in his air passages, postural drainage and suction should be instituted to prevent obstruction and anoxemia, both of which increase intracranial pressure. If the pulse is rapid and circulation poor, nasal oxygen is given. The oxygen tent interferes with handling the patient. If there is obstruction in the posterior nasopharynx due to the clamping down of the jaw and the tongue falling back, a large rubber tube is passed through the nose into the lower pharynx and cut off even with the nose to provide an air passage. The patient should be catheterized every eight hours to prevent abdominal distension and consequent impairment of respiration as well as restlessness. If the nasal catheter through which he is getting oxygen is too far into the nasopharynx, the abdomen will become distended due to inflation of the stomach. Again it is urged that one should not give sedatives unless it is absolutely necessary.

Now let us consider the management of a patient with compound fracture. He is to be given the preliminary treatment as outlined before. The hair is shaved well away from the head injury giving plenty of room

for the operative procedure. When the patient is out of shock he is taken to the operating room and the skin prepared in the usual manner. The compound wound is then swabbed with 0.5 per cent iodine. The scalp incisions are cut so that enough room may be obtained for closure. The macerated scalp and bone fragments are removed in a thorough and complete debridement. If the dura is not cut it is not opened unless there is evidence of marked intracranial pressure or the blue dura of a subdural hematoma. It is important to be very gentle with the tissues while this is being done. Foreign material must not be left in the wound. If the dura is lacerated it is debrided and the brain examined. If there is a contusion that extends down into the brain, this contused, damaged brain should be sucked out and any small pieces of bone fragment removed. This is best done by irrigation with a catheter and by suction. Silver clips are used to prevent bleeding. The implantation of muscle into this area is not recommended or the extensive use of the cautery. The dura is closed tightly and, if necessary, a transplant of the galea from the adjacent scalp flap may be used. The scalp should be closed in layers and without drainage.

If necessary this procedure may be put off for twenty-four hours to let the patient's condition improve. The best time for it, however, is usually soon after admission and blood transfusions are given during and after the procedure. After twenty-four hours the wound should be treated as a contaminated wound and the possibility of abscess development should be borne in mind.

For gunshot wounds of the head this procedure is also followed. An x-ray should be taken if there is no wound of exit to determine the path of the bullet before operation.

Simple depressed fractures are treated as if there were no depression unless there is evidence of marked intracranial pressure. One should then elevate the depression immediately and look for a hemorrhage. If there is no marked intracranial pressure the bone is elevated after the patient has fully recovered from his brain damage. At this time the procedure is much simpler and there is less damage to an already damaged brain.

In cases where the patient seems to be getting worse instead of better under adequate treatment and there are neurologic signs pointing to the cortex, either unilateral or bilateral, a subdural hemorrhage should be suspected and bilateral trephines should be done as a diagnostic procedure. If there are typical decerebrate fits with respiratory and neurologic signs of midbrain damage operation is not indicated.

If there is the typical "free interval" of the extradural hemorrhage with progressive deepening of unconsciousness, hemiplegia and dilated pupil, then immediate subtemporal decompression is indicated for ligation of the vessel and removal of the clot. Two hundred cubic centimeters of intravenous sucrose may be given to improve the patient's condition until the operating room can be prepared. A lumbar puncture is not indicated.

Brain abscess is a complication of poorly treated compound fractures. If a patient's wound continues to drain after a compound fracture and he develops a hemiplegia, marked headache, a slow pulse and some slight elevation of temperature, a brain abscess is suspected. When the lumbar puncture is done an elevation of the intracranial pressure will usually be found with a slight increase in cell count and total protein. The wound should be opened and the bone over the abscess removed, allowing the brain to protrude slightly through the opening. This is packed off with iodoform gauze and closed. Seven to eight days later this wound is reopened and the soft brain tissue is removed by suction, exposing the capsule of the abscess. The capsule is then opened with the electrosurgical unit and the pus evacuated. The cavity is explored with the lighted retractor to determine if there are other pockets of the abscess that should be drained. An iodoform handkerchief is placed lining the cavity and is packed with iodoform strips. The pressure is controlled with lumbar puncture, posture and dehydration, and the strips are gradually re-

moved until the cavity is obliterated. The handkerchief is then very carefully removed with hydrogen peroxide and the wound allowed to granulate in. These are very difficult cases to handle and should be referred to one trained in neurosurgery.

Osteomyelitis frequently follows poorly treated compound fractures. Ten days after the development of swelling of the soft tissue x-ray evidence of bone disease becomes apparent. X-ray pictures should be taken every other day when this condition is suspected, and if there is x-ray evidence of involvement of the bone, the entire diseased bone should be removed and the wound packed open, allowing it to granulate in. The management of this condition is best handled by one trained in neurosurgery.

If there is a fracture through the cribriform plate with a leakage of spinal fluid through the nose or a crack into the paranasal sinuses or petrous portion of the temporal bone, the development of meningitis should be feared. It is our policy to give small doses of sulfanilamide or sulfathiazol to these patients until the danger has passed. If the rhinorrhea continues after five days the tear in the frontal dura is repaired to prevent meningitis. Nothing should be done to prevent the flow of fluid from the nose or ear, and the patient should be cautioned against coughing, sneezing or blowing the nose.

D. *Injury to Cranial Nerves*

(1) Olfactory; (2) Optic; (3) Oculomotor; (4) Facial; (5) Acoustic.

These nerves should be tested thoroughly after injury to determine if they have been damaged. The facial may be repaired by anastomosis.

Post-Traumatic Sequelae

(1) Epilepsy: Two per cent of all patients with head injuries develop epilepsy. These cases should be thoroughly studied from a physical and mental point of view. An encephalogram should follow this study. This will break up many adhesions between the pia and arachnoid. It will also improve the circulation in the sulci of the brain, preventing stagnation of fluid. Evidence of cortical scar formation requires an operation and removal of the scar unless it involves the left side of the brain and in a vital center. All depressed fractures should be elevated as the depression is always much greater than the x-ray shows. If there are Jacksonian attacks or localized neurologic signs, a craniotomy should be done and the cortex examined for a cyst that may be removed. If the patient continues to complain or is incapacitated, bilateral trephine openings should be placed and search made for a subdural collection of fluid or fluid hematoma, as neither of these conditions usually shows on the encephalogram. All patients with head injuries should be encouraged to go back to work as soon as possible. How much they do during the day should be left to them, and they should be encouraged in their own efforts. A short summary of the cases admitted to the University Hospital during the past year are presented on following pages.

Conclusion

In a critical analysis of these cases it was found that there were 80 patients admitted who had a definite craniocerebral trauma from June 1, 1938, to June 1, 1939. Out of the 80 there were five deaths, or a mortality rate of 6.25 per cent. There were 63 serious injuries to the brain, or 78.7 per cent of the cases. This is due to the fast speed of traveling in automobiles in this section of the country. There were 17 cases, or 21 per cent of fracture of the base of the skull with marked damage to the brain. There were 10 patients, or 12.5 per cent with compound fractures that required immediate operation. There were 4 or 5 per cent of simple depressed fractures that were operated upon after the head injury had improved. There were two cases of subdural hematomata, or 2.5 per cent. One of these died of bilateral pneumonia six days after operation. There was also marked laceration and contusion of the brain with prolonged unconsciousness. There were two patients with bilateral trephine; one disclosed a bilateral subdural hydroma that cleared completely in three weeks in spite of decerebrate rigidity and fits; the other died because of severe laceration and contusion of the base of the brain

Case	Age	Diagnosis	Operation	Discharged
1. C.J.	18	Laceration Scalp Cerebral Concussion	None	Cured
2. E.P.	80	Laceration Scalp Congestion and Edema of Brain	None	Cured
3. B.B.	14	Compound Depressed Fracture of Frontal Bone Laceration and Contusion of Brain	Debridement	Cured
4. U.L.	20	Laceration and Contusion of Brain	None	Cured
5. W.C.	52	Laceration and Contusion of Brain Left subdural hematoma	Ventriculogram Left Bone Flap	Cured
6. J.R.	4	Contusion and Edema of Brain Fracture Base of Skull Lacerations about Head	None	Cured
7. J.B.	21	Laceration and Contusion of Brain Laceration of Scalp	None	Cured
8. W.S.	30	Contusion and Edema of Brain	None	Cured
9. E.J.	23	Edema of Brain Laceration of Scalp	None	Cured
10. W.O.	10	Depressed Fracture of Parietal Bone Laceration and Contusion of Brain	Elevation of Depressed Fracture	Cured
11. M.G.	8	Laceration Scalp Fracture Base of Skull Contusion of Brain	None	Cured
12. A.K.	57	Fracture Base of Skull Laceration and Contusion of Brain	None	Cured
13. E.K.	20	Laceration Scalp Edema of Brain	None	Cured
14. W.E.	24	Laceration of Scalp Congestion and Edema of Brain	None	Cured
15. N.G.	47	Laceration of Scalp Edema of Brain	None	Cured
16. T.S.	38	Compound Fracture of Frontal Bone Laceration and Contusion of Brain	Debridement	Cured
17. C.O.		Fracture Base of Skull Laceration and Contusion of Brain	None	Cured
18. J.R.	16	Gunshot Wound of Skull and Spine Laceration and Contusion of Brain	Debridement	Cured
19. N.W.	72	Gunshot Wound of Head and Shoulder	Debridement	Cured
20. E.D.	39	Compound Depressed Fracture of Skull Laceration and Contusion of Brain	Debridement and Elevation	Cured
21. S.H.	35	Fractured Skull Laceration and Contusion of Brain	None	Cured
22. M.S.	8 mos.	Depressed Fracture of Temporal Bone, Left Laceration and Contusion of Brain	Elevation of Depressed Fracture	Cured
23. G.A.	28	Ice Pick Stab of Brain and Skull	Removal of Ice Pick. 3″ in length	Cured
24. B.C.	23	Laceration of Scalp Compound Fracture of Skull Laceration and Contusion of Brain	Debridement	Cured
25. C.W.	85	Laceration of Brain and Scalp Pneumonia	None	Died
26. S.T.	11	Laceration of Scalp Contusion of Brain	None	Cured
27. J.W.	34	Laceration of Scalp Fracture Base of Skull Contusion and Edema of Brain	None	Cured

Case		Age	Diagnosis	Operation	Discharged
28.	C.E.	35	Laceration of Scalp Laceration and Contusion of Brain	None	Cured
29.	C.K.	16	Laceration of Scalp and Face Laceration and Contusion of Brain	None	Cured
30.	J.B.	72	Fracture Base of Skull Laceration and Contusion of Brain	None	Cured
31.	C.M.	50	Laceration of Scalp Compound Fracture of Skull Laceration of Brain	Debridement	Cured
32.	E.G.	6 mos.	Depressed Fracture Left Parietal Bone Contusion and Edema of Brain	Elevation of Depressed Fracture	Cured
33.	H.F.	14	Compound Depressed Fracture Left Temporal Bone Laceration and Contusion of Brain	Elevation of Depressed Fracture Debridement	Cured
34.	E.G.	12 mos.	Depressed Fracture Left Parietal Region Contusion and Edema of Brain	Elevation of Depressed Fracture	Cured
35.	C.M.	20	Laceration of Face and Head Contusion and Edema of Brain	None	Cured
36.	Y.M.	8	Laceration and Contusion of Brain	None	Cured
37.	G.B.	27	Fracture Base of Skull Laceration and Contusion of Brain	None	Cured
38.	J.O.	45	Fracture Base of Skull Contusion and Edema of Brain	None	Cured
39.	H.B.	30	Compound Fracture Malar Bone Fracture Base of Skull Fracture Right 6th and 7th Ribs Fracture of Femur Laceration and Contusion of Brain	None	Cured
40.	J.A.	5	Fracture Base of Skull Laceration and Contusion of Brain Rupture of Liver Rupture of Gall Bladder Hemorrhage of Intestines and Stomach	None	Died
41.	H.H.	8	Compound Depressed Fracture Right Parietal Bone Laceration and Contusion of Brain	Debridement Elevation of Fracture	Cured
42.	F.A.	46	Laceration about Head and Face Contusion and Edema of Brain	None	Cured
43.	G.G.	52	Laceration of Scalp Congestion and Edema of Brain	None	Cured
44.	J.I.	20	Laceration of Scalp Laceration of Face and Eyeball Edema of Brain	None	Cured
45.	B.K.	13	Subdural Hematoma. Left Laceration and Contusion of Brain Fracture Base of Skull	Bilateral Trephine with Evacuation of Subdural Hematoma	Died Bilateral Pneumonia
46.	G.S.		Fracture Base of Skull Laceration and Contusion of Brain Decerebrate Rigidity	Bilateral Trephine	Died
47.	C.H.	29	Contusion and Edema of Brain	None	Cured
48.	J.M.	28	Fracture Base of Skull Laceration of Brain Fracture Right Femur Fracture 2nd and 3rd Ribs	None	Died
49.	H.C.	20	Laceration of Face and Head Edema of Brain	None	Cured

Case		Age	Diagnosis	Operation	Discharged
50.	C.K.	65	Laceration of Head Fracture Right Clavicle Edema of Brain	None	Cured
51.	S.M.	24	Contusion and Edema of Brain	None	Cured
52.	W.R.	44	Fracture Left Parietal Bone Contusion and Edema of Brain	None	Cured
53.	W.L.	34	Contusion and Edema of Brain Laceration of Face and Head	None	Cured
54.	W.H.	15	Laceration of Scalp and Head Contusion and Edema of Brain	None	Cured
55.	R.P.	16	Concussion	None	Cured
56.	C.T.	22	Lacerations about Head and Face	None	Cured
57.	L.R.	26	Laceration of Face and Head Concussion	None	Cured
58.	N.T.	50	Laceration of Scalp Contusion and Edema of Brain	None	Cured
59.	C.G.	27	Laceration of Scalp Concussion	None	Cured
60.	J.G.	21	Multiple Lacerations of Head Contusion and Edema of Brain	None	Cured
61.	I.F.	22	Laceration of Scalp Contusion and Edema of Brain	None	Cured
62.	J.R.	28	Laceration of Scalp Contusion and Edema of Brain	None	Cured
63.	R.B.	22	Contusion and Edema of Brain	None	Cured
64.	E.R.	32	Laceration of Scalp Concussion	None	Cured
65.	D.M.	23	Laceration and Contusion of Brain	None	Cured
66.	J.D.	39	Contusion and Edema of Brain	None	Cured
67.	L.H.	15	Contusion and Edema of Brain	None	Cured
68.	J.O.	55	Concussion	None	Cured
69.	W.L.	26	Contusion and Edema of Brain Laceration of Scalp Fracture of Mandible	None	Cured
70.	E.S.	24	Laceration of Scalp Concussion	None	Cured
71.	W.W.	24	Contusion and Edema of Brain	None	Cured
72.	A.G.	14	Laceration of Scalp Laceration and Contusion of Brain Fractured Pelvis	None	Cured
73.	J.G.	3	Contusion and Edema of Brain	None	Cured
74.	W.J.	32	Concussion of Brain	None	Cured
75.	A.C.	42	Concussion Contusions and Abrasions	None	Cured
76.	S.A.	15	Contusion and Edema of Brain	None	Cured
77.	T.M.	34	Laceration and Contusion of Brain Fracture Base of Skull	None	Cured
78.	J.M.	26	Fracture Base of Skull Laceration and Contusion of Brain	None	Cured
79.	M.H.	22	Laceration and Contusion of Brain Fractured Pelvis	None	Cured
80.	D.H.	7	Fracture Base of Skull Laceration and Contusion of Brain Fracture of Left Femur Bilateral Subdural Hydroma	Bilateral Trephine Right Temporal Decompression	Cured

with decerebrate rigidity. There were 18 operative cases (22.5 per cent of all cases) in which the mortality rate was 11.1 per cent. The percentage of operative cases is high in the series because of the compound fractures. It is pleasing to know that not one of the patients with compound fractures died or became infected. It is hoped that this summary of the craniocerebral trauma treated in this hospital over the period of one year will give some idea of the efficacy of the methods used.

PERNICIOUS ANEMIA IN THE NEGRO

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The occurrence of pernicious anemia in the Negro is unusual. According to Davidson and Gulland[1] "it is doubtful if the disease ever occurs in full-blooded Negroes." Murphy[2] states "Negroes seem to be relatively immune from the disease."

During a one year period in the Colored Unit of Grady Hospital, the writer has observed the disease in three Negro patients. A concise history of each case is given.

Report of Cases

Case One, History: A. D., a negress, aged 26, was admitted on Feb. 15, 1940, because of generalized weakness of six months' duration.

The father and his family were of a light complexion but were not considered to be true mulatto. The mother was quite black; as was the one brother. The past history was non-contributory.

In August, 1939, the patient noted redness and soreness of the tongue, subsiding in several weeks. One month later she noticed weakness which gradually became so marked that it was necessary to go to bed in December, 1939. About this time, numbness and tingling of the hands and feet became a prominent symptom and continued until entry. Dyspnea, occasional precordial pain on exertion, and a transient pedal edema had been noted following the onset of illness. She had lost twenty pounds in six months. There was no history of intestinal hemorrhage; there had been cessation of menstruation since October, 1939.

Physical Examination: On admission, examination showed a young, light colored Negro woman in no acute distress (Fig. 1.) The pulse, temperature and respirations were normal. The blood pressure was 120 systolic, 60 diastolic. The mucous membranes were very pale; there was no definite icterus to the sclerae. Atrophy of the peripheral papillae of the tongue was noted. There was evidence of a moderate loss of weight. A loud systolic murmur was heard over the entire precordium, but the heart was not enlarged. The lungs were clear. The abdomen was scaphoid; the liver and spleen, not palpable. On neurologic examination the vibratory sense was diminished to absent over the lower extremities; here the reflexes were hyperactive with an occasional plantar reflex in extension. No gross motor disturbances were demonstrable.

Laboratory Data: The initial red blood cell count was 930,000 with a hemoglobin of 3.2 Gm.; the white blood cell count was 8,000, of which 61 per cent were polymorphonuclear cells. Stained smears of the peripheral blood showed definite macrocytosis and hyperchromia with many droplet and racket-shaped red cells. Many nucleated red cells were noted along with several normoblasts and occasional megaloblasts. Punctate and diffuse polychromatophilia was evident, as was hypersegmentation of the nuclei in the polymorphonuclear white cells. The smear appeared to be typical of that seen in pernicious anemia.

Further blood studies gave these results:

Color Index: 1.1. to 1.2.

Mean Corpuscular Volume: 96 to 106 cu. micra.

Mean Corpuscular Hemoglobin Concentration: 34.4×10^{-12} Gm. Hb.

Sedimentation Rate, corrected for anemia: 8 mm. in one hour.

Reticulocytes: 2 per cent.

Sickle Cell Preparation: No sickling after 48 hours.

Icterus Index: Admission—57.
Discharge—2.4.

Bilirubin: Admission—0.8 mg. per cent, indirect reaction.
Discharge—0.3 mg. per cent.

Blood Kahn: Negative.

Bromsulpthalein Liver Function Test: Normal.

Sternal Marrow (after two weeks liver therapy): Slight hyperplasia of erythropoetic elements.

Glucose Tolerance Curve: Fasting 95 mg. per cent; ½ hour, 118 mg. per cent; 1 hour, 118 mg. per cent; 1½ hours, 69 mg. per cent; 2 hours, 53 mg. per cent.

Other laboratory data of importance:

Gastric Analysis: No free hydrochloric acid in fasting specimen nor after histamine and alcohol stimulation.

Stool: No fat demonstrable; no occult blood; no ova.

Urine: Negative.

Roentgenographic studies of the gastro-intestinal tract with barium showed only a large colon with several redundant loops.

Course in Hospital: Through error, a transfusion of 600 cc. of citrated blood was given on the day after admission. No clinical change was noted, and three weeks later, after the red blood cell counts had become stabilized at 1,800,000, she was started on liver extract, 3 cc. intramuscularly daily (Lederle's Liver Extract, each 10 cc. containing 33 U.S.P. units). Within three days clinical improvement became marked with a moderate reticulocyte reaction which was maximal at 9.5 per cent

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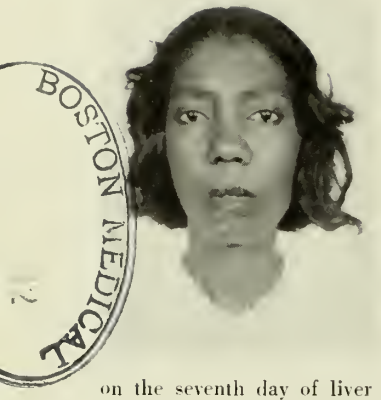

Fig. 1
Photograph of patient in Case One.

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on the seventh day of liver injections. After the daily doses of liver for a period of one week, similar injections were given on alternate days for two weeks together with oral ferrous sulfate. Each week thereafter she received a 5 cc. injection of liver along with the ferrous sulfate. There was a progressive rise in red blood cells and hemoglobin value until a normal level was reached three months after initial liver therapy (Fig. 2). A stained smear of the peripheral blood during this change showed a gradual return to a more normal blood picture. After two weeks of liver therapy the neurologic examination was within normal limits. Her health was considered good with a gain of thirty pounds in weight and the return of her menstrual periods.

Final Diagnosis: Pernicious Anemia.

Comment: It was unfortunate that this patient received a transfusion shortly after admission. After a three week period, with no further changes in her blood counts, liver was instituted. Although the maximal reticulocyte response was but 9.5 per cent, the continued rise of red blood cells and hemoglobin determination, along with the marked clinical improvement, seemed sufficient to warrant the diagnosis of pernicious anemia. The question of sprue was entertained. Because the stool examination showed no fat and, though not marked, the glucose tolerance curve gave a definite rise, the possibility of sprue was dismissed.

Case Two, History: J. W., a Negro male, aged 65, was admitted on March 7, 1940, complaining of weakness and dizziness. For the previous two years he had been treated for heart disease, and had been admitted to this hospital in January, 1939, in moderate congestive heart failure. At that time he had a hyperchromic, macrocytic anemia. Gastric analysis showed no free hydrochloric acid on fasting specimen, nor after histamine and alcohol stimulation. However, a primary anemia evidently was not considered very likely because three transfusions were given along with iron and several injections of liver extract. He was discharged in April, 1939, adequately compensated of his heart failure and with a red blood cell count of 2,800,000, and a hemoglobin determination of 10 Gm.

Following discharge from the hospital, his condition remained fairly good. In the medical clinic in July, 1939, the tongue edges appeared red and slick and did not improve on Brewer's yeast. For two months prior to the present entry, weakness became generalized with episodes of dizziness and mental disorientation. During the month before entry, he complained of numbness of the lower extremities. There was no history of intestinal bleeding or hematemesis.

In 1933, he was known to have positive Kahn and Wassermann reactions for which he received a total of 64 injections of arsenic and bismuth. In 1939, the Kahn reaction was negative and there was no clinical evidence of syphilis.

The family history revealed that the patient's mother, brother and two sisters were of a light complexion, but that he and his father were quite dark.

Physical Examination: Examination on March 7, 1940, showed a well-developed, elderly, black Negro male (Fig. 3) in no acute distress, but mentally disorientated. The pulse rate was 110; blood pressure 130 systolic, 80 diastolic. There was marked pallor of all mucous membranes; the tongue pale and very slick with atrophy of its papillae. Engorgement of the neck veins was moderate. The heart was markedly enlarged, particularly to the left with a loud systolic murmur at the mitral area. Numerous, moist rales were heard at the lung bases. The liver was felt three finger-breadths below the costal margin, but the spleen was not palpable. There was moderate pitting edema of the lower extremities and over the parasacral region. No definite changes were found on neurologic examination, except for the mental disorientation.

Laboratory Data: Initial blood studies showed a red cell count of 940,000, with 4 Gm. of hemoglobin and a white count of 3,500. Stained smears of the peripheral blood showed marked poikilocytosis with many large, deeply-stained cells. Many nucleated red cells were seen, but only an occasional normoblast. Polychromatophilia was noted, and the hypersegmentation of the nuclei of the polymorphonuclear white cells.

More detailed hematologic studies showed:

Color Index: 1.4.

Mean Corpuscular Volume: 75 cu. micra.

Mean Corpuscular Hemoglobin Concentration: 42.5 x 10^{-12} Gm. Hb.

Sedimentation rate, uncorrected: 42 mm. in one hour.

Reticulocyte Count: 1 per cent.

Sickle Cell Preparation: No sickling after 2 hours.

Blood Kahn: Negative.

Icterus Index: 5.

Bilirubin: 0.3 mg. per cent.

Other laboratory data of importance:

Stool: No occult blood; no ova.

Urine: Negative.

Gastric Analysis: No free hydrochloric acid in fasting specimen, nor after stimulation with histamine and alcohol.

Attempts to persuade sternal marrow punctures were unsuccessful, the patient being disorientated at this time.

Roentgenographic studies of the gastro-intestinal tract

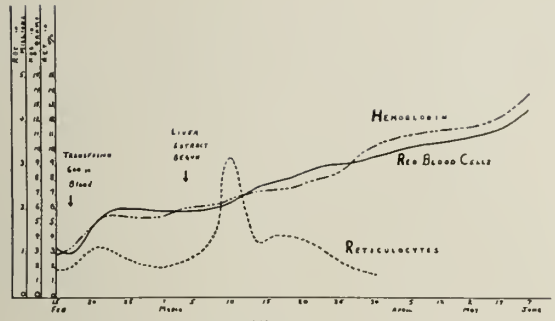

Fig. 2
Hematologic response to liver therapy, Case One.

showed no pathologic lesions.

Teleoroentgenogram showed cardiac enlargement and pulmonary congestion.

Course in Hospital: After initial blood studies were made, 3 cc. of liver extract was given intramuscularly daily (Lederle's Liver Extract, each 10 cc. containing 33 U.S.P. units). On the fourth day, because of evidence of marked cerebral anemia and the very poor condition of the patient (R.B.C.=830.000), although the reticulocytes were 16 per cent at that time, it was deemed advisable to give a transfusion of 550 cc. of citrated blood. On the sixth day of liver therapy the reticulocyte response was maximum at 17 per cent. After the first seven daily doses of 3 cc. of liver extract similar amounts of liver extract were given on alternate days for two weeks with oral ferrous sulfate. Marked improvement resulted, especially in his clinical appearance with the gradual and steady rise of red cells and hemoglobin determination (Fig. 4). Evidence of congestive heart failure disappeared on bed rest, digitalis, and the return of the blood picture to a more normal level. Following discharge from the hospital, he was given weekly liver injections of 5 cc. each. The blood picture returned within normal limits and his general health was good.

Final Diagnosis: Pernicious anemia; arteriosclerotic heart disease, congestive heart failure.

Comment: This patient had previously been given liver, in addition to several transfusions, but the dosage was inadequate. On admission he was mentally confused and could not be persuaded to permit a sternal puncture. Because of the marked cerebral manifestations, he was given a transfusion, although the response to liver was definite. The mean corpuscular volume was quite low but the other hematologic studies and subsequent course of the patient suggest this one determination was in error. On liver therapy the red cell count and hemoglobin determination returned to a normal level. The marked clinical and hematologic response to liver justified the diagnosis of pernicious anemia.

Case Three, History: I. B., a negress, aged 27, was first admitted on June 17, 1936, because of loss of

Fig. 3
Photograph of patient in Case Two.

appetite and generalized weakness of one month's duration. Nausea and flatulence were noted but there was no history of sore tongue, diarrhea, excess uterine bleeding, hematemesis or melena. Because of extreme weakness, she became bed-ridden just prior to entry.

The family history revealed the father to be of dark complexion and the mother of a lighter color. Two brothers were brown; one brother and one sister were dark but none of the family was considered very dark.

Physical Examination: Examination showed a well developed, young negress whose pigmentation tended toward that of a mulatto. The mental status was of the lower strata. There was marked pallor of the mucous membranes, conjunctivae, and nail beds. Icterus was moderate. The tongue was pale, but the papillae were not atrophied. The spleen was not palpable. Neurologic examination showed no variation from the normal. The remaining physical examination revealed nothing of interest.

Laboratory Data: Blood studies on admission showed a red cell count of 1,070.000 and a hemoglobin value of 4.4. Gm. The white cell count was 7.800 of which 56 per cent were polymorphonuclear cells. Stained smears of the peripheral blood showed marked poikilocytosis with definite macrocytosis. There was also polychromatophilia and basophilic stippling. Many immature red cells were noted but only a few megaloblasts.

Other hematologic studies were:

Color Index: 1.3.

Volume Index: 1.34.

Mean Corpuscular Hemoglobin Content: 41.1 x 10^{-12} Gm. Hb.

Reticulocytes: 0.2 per cent.

Sickle Cell Preparation: No sickling.

Icterus Index: 25.

Bilirubin: 6.9 mg. per cent; delayed direct reaction.

Blood Wassermann and Kahn: Negative.

Other laboratory results:

Gastric Analysis: No free hydrochloric acid in fasting specimen, nor after stimulation with histamine and alcohol.

Stool: No occult blood; no ova.

Urine: Negative.

Roentgenographic studies of the stomach and intestines showed nothing of interest.

Course in Hospital and Subsequent Admissions: Liver therapy was started, 3 cc. intramuscularly (Lederle's Liver Extract) and clinical improvement was prompt

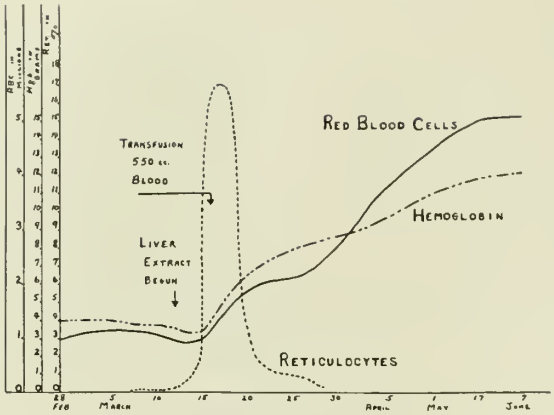

Fig. 4
Hematologic response to liver therapy, Case Two.

with the maximal reticulocyte response of 26 per cent on the fifth day of treatment. After the initial daily dose of two weeks duration, weekly injections of 5 cc. were given in the medical clinic. In September, 1936, she was re-admitted to the hospital at which time bone marrow studies were made showing a marked increase in the megaloblastic elements. Since the red cell count at that time was 4,000,000 and the hemoglobin value was 9.4 Gm., the liver treatment was considered inadequate. One month after intensive liver therapy, fortified by oral ferrous sulfate, the red cell count rose to 5,160,000 and the hemoglobin value to 15.6 Gm. On this entry, the Wassermann and Kahn reactions were found to be positive and antiluetic therapy was started.

Following discharge in October, 1936, she failed to return for her liver injections but was again admitted to the hospital in June, 1939, with an upper respiratory infection. At that time the red cell count was 4,900,000 with a hemoglobin determination of 10.8 Gm. After discharge she was recalled to the hospital ten month's later. She had received no liver therapy but continued antiluetic treatments at a city clinic. On this admission, May 7, 1940, the following determinations were of interest:

Red Blood Cells: 3,090,000.
Hemoglobin: 8.5 Gm.
Color Index: 0.9.
Reticulocyte: 0.5 per cent.
Mean Corpuscular Volume: 95 cu. micra.
Mean Corpuscular Hemoglobin Concentration: 28 x 10^{-12} Gm. Hb.
Stained Smear: Moderate degree of variation in size and shape of the red cells but no macrocytosis; neither were immature red cells noted.
Other data of interest:
Gastric Analysis: No free hydrochloric acid even after histamine and alcohol stimulation.
Icterus Index: 4.
Van den Bergh: Negative.

After eight daily injections of 1 cc. of liver extract (Lilly's concentrated liver extract, 1 cc.=15 U.S.P. units), although no definite reticulocyte response was noted, the red blood count rose to 3,400,000 with a hemoglobin determination of 9.8 Gm. She was discharged from the hospital and followed in the medical clinic, where she received weekly liver injections (16 U.S.P. units). On June 24, 1940, her red blood cell count was found to be 4,400,000, hemoglobin value of 11.4 Gm. and general health good.

Final Diagnosis: Pernicious anemia; Syphilis, treated.

Comment: The history, the blood and sternal marrow findings, the presence of achlohydria after histamine, and the response to liver, suffice to make the diagnosis of pernicious anemia. However, treatment was not continued as advised, and the recent studies of the blood in May, 1940, showed a slight hypochromic anemia. The Wassermann and Kahn reactions on the first admission were negative but later were found to be positive. The patient probably received her luetic infection after the initial admission and syphilis had no bearing on her primary anemia.

Discussion

That pernicious anemia is rare in the Negro is emphasized by the relatively small number of cases that have been reported. The majority of these reports have been recorded at the larger hospitals in scattered areas throughout the United States. In each of these hospitals the series of cases have been collected over very long periods and should give a reasonably accurate incidence of pernicious anemia in the Negro. In addition, there have been numerous, sporadic case reports which, together with the above, are tabulated on the following page. (Table 1).

According to Minot[16], there are probably not less than 35 cases of pernicious anemia per 100,000 population. In comparison, from the preceding table, the frequency in the Negro is about 10 per 100,000.

In regard to the purity of the racial strain in the reported cases, this cannot be ascertained. However, in the majority of the reports, special mention is made that the cases were mulatto or of mixed blood. As in the three cases reported here, careful racial history usually reveals a discrepancy in the purity of the strain. Willison and Evans[17] apparently were the first to suggest the possibility of cross-breeding as important in the occurrence of pernicious anemia in the Negro. From the above review of the reported cases, it is apparent that this

Table 1. Reported Cases of Pernicious Anemia in the Negro

Hospital	Year	Reported by	Total Number Cases	In Negro*	Negro Admissions†	% Cases In Negro‡
Johns Hopkins, Baltimore	1889-1922	Evans, F. A. (3)	578	9	34,380	
	1930-1934	Musser, J. H. and Wintrobe, M. M. (4)	64*	10*	50% total	
			642	19		2.95%
Cook County, Chicago	1912-1920	Carr, J. G. (5)	148	6	10% total	
	1920-1926	Trout, E. F. (6)	256*	8*	33% total	
			404	14		3.46%
Peter Bent Brigham, Boston	1913-1932	Friedlander, R. D. (7)	500	3	4,503	0.6%
Charity, New Orleans	1920-1926	Jamison, S. C. (8)	54	12	49.188	
	1926-1936	Kampmeir, R. and Cameron, P. (9)	106*	14*	247.239	
			160	26		16.25%
U. S. Veterans, Tuskegee, Ala.	1923-1928	Matthews, H. O. (10)	2	2	4,940	(Negro Hospital)
Private Cases	1925-1938	Murphy, W. P. (2)	578	5	.....	0.86%
Graduate School, Univ. of Pa.	1930-1939	Jones, C. A. (11)	34	1	.....	2.9%
Grady, Atlanta	Dec. 1935-May 1940	Present Report	59	3	46,996	5.08%
Morrisania. New York	1929-1934	Strauss, N. and LaPorte. T. F. V. (12)	....	1	8,527	.....
Meadowbrook, Hempstead, N. Y.	1936	Millett, J. (13)	....	1	.....	.....
Private Cases	1937	Granady, J. T. W. (14)	....	4	.....	.....
Peter Bent Brigham Boston	1940	Case Presentation, Harvard Medical Society. (15)	....	1	.....	.....

* Total number of cases in the Negro—80.
† 44 cases occurred in 396,673 Negro admissions, or approximately 1 per 10,000 admissions.
‡ Of 2,379 cases in which the race was stated, 73 occurred in the Negro, or 3.1 per cent.

factor is a major one, and, it is still doubtful if pernicious anemia ever occurs in the full-blooded Negro.

From the above tabulation of the reported cases, it is of interest to note that in 2379 cases of pernicious anemia in which the race was stated, 73 occurred in the Negro. Thus, approximately 3 per cent of the cases of pernicious anemia occur in the Negro. The incidence is found to be highest (16 per cent) in New Orleans where the Negro hospitalization and population is high, and lowest in Boston (0.7 per cent), where the Negro admissions are low. Likewise, and for the same reason, the incidence in Atlanta is somewhat greater than in Chicago and Baltimore.

Summary

1. Three cases of pernicious anemia in the Negro are reported.

2. A review of the literature reveals that approximately 3 per cent of the cases of pernicious anemia occur in the Negro, varying in different localities in direct proportion to the size of the Negro hospitalization. The incidence of pernicious anemia in the Negro race is 10 per 100,000 as compared to 35 per 100,000 in the white race.

3. Pernicious anemia should always be considered in anemia occurring in the Negro, but it is still doubtful if the disease ever occurs in the full-blooded Negro.

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FOX RABIES EPIZOOTIC IN GEORGIA

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Atlanta

Rabies in the fox is not of unusual occurrence in the United States. The disease is usually sporadic in character in this animal and has been reported from various sections of the country. During 1938 and 1939 reports of rabies in the fox were received from the following states:

Rabid Foxes

	1938	1939
California	0	1
Georgia	*1	1
Indiana	1	0
Iowa	0	2
Kentucky	5	0
Ohio	0	7
South Carolina	8	9
Texas	0	1
Wisconsin	8	3

*Pet fox

The disease in epizootic form has been described in Baldwin County, Alabama, by Wilkerson in 1890, but since that time it has been extremely rare in Georgia and Alabama.

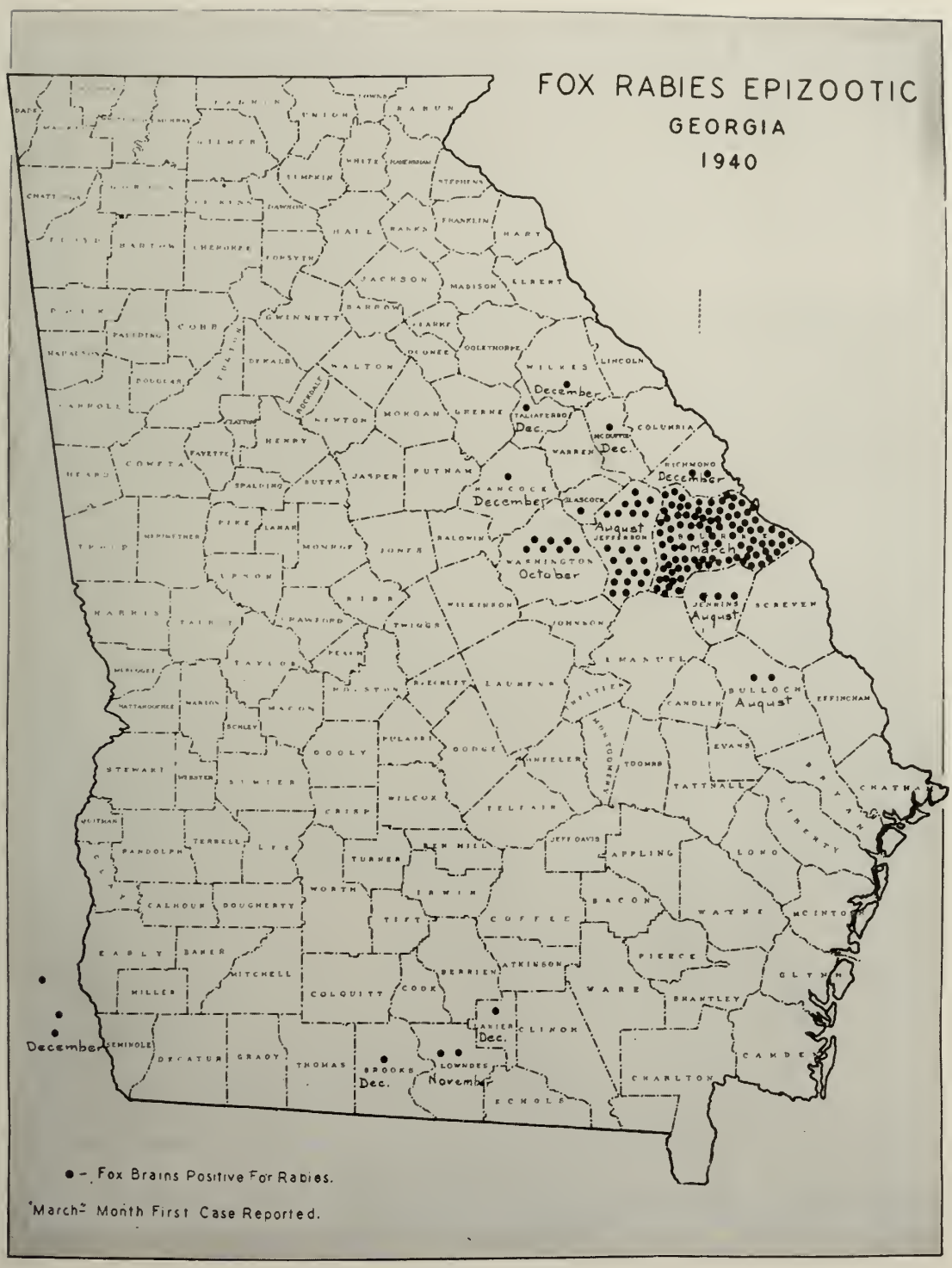
For the past few years there has been a marked increase in the fox population in the southeastern section of the United States and certain areas have been favored as fox hunting territory. Burke County Georgia has long been a favorite field for this sport, attracting hunters and hounds from far and near.

The first instance on record of rabies in the wild fox in Georgia was reported in August, 1939, in Evans County, about sixty miles southwest of Burke County. No subsequent cases have since been reported in this county. The first appearance of rabies in foxes in Burke County was reported in March, 1940. Burke County lies on the eastern border of Georgia midway between the north and south borders, and is separated from South Carolina by the Savannah River. It is one of Georgia's largest counties and while very fertile contains many heavily wooded areas and swamps which provide ideal cover for foxes.

In rapid succession an increasing number of reports were received of foxes being killed or driven off after bold daylight attacks on farm workers, on live stock, on poultry, and even on dogs. The heads of a number of foxes thus killed were sent to the laboratories of the Georgia Department of Public Health and were found to show typical Negri bodies of rabies. Further confirmation was obtained in every instance by animal inoculation. By July the disease had spread throughout the county and had begun to appear in the adjoining counties of Jefferson, Jenkins and Bulloch.

Late in June county and state health authorities, aided by the state veterinarian and both state and federal wild life agencies, began an investigation. It was found that not only had considerable loss of livestock occurred, but that a score or more persons had been bitten or so seriously exposed as to require prophylactic antirabic treatment. So serious had the problem become that local residents of Burke County, including farmers, live stock breeders, and fox hunters assembled in mass meeting before the county commissioners and the county health department to demand control measures. Hunting and trapping of foxes, together with a county-wide dog quarantine were instituted by county, state and federal governmental agencies.

The accompanying map of Georgia shows the progress of the disease throughout the summer and fall of 1940. By October the outbreak had extended into several contiguous counties and elsewhere throughout the southern half of the state. What appears to be a separate smaller outbreak has recently appeared in extreme South Georgia, and in Southeast Alabama.



In addition to those diagnosed as definitely rabid by laboratory tests, large numbers of foxes have been found dead in the woods and fields. Since there is no evidence of any other concurrent disease in foxes it is believed these died of rabies also. Antirabic treatments have been furnished to persons in four other counties who were attacked by supposedly rabid foxes which escaped. These counties are: Seminole, Harris, Cook, and Miller.

By Jan. 1, 1941, a total of 361 fox heads had been submitted to the State Health Laboratories for examination. Of this num-

ber 121, or 33.5 per cent were found positive for rabies either by the direct finding of Negri bodies, or by mouse inoculation. The positive specimens were distributed among the following counties:

County	Number Positive
Brooks	1
Bulloch	2
Burke	76
Glascock	1
Jefferson	22
Jenkins	3
Lanier	2
Lowndes	1
McDuffie	1
Richmond	2
Taliaferro	1
Washington	8
Wilkes	1

As a result of fox bites 30 persons have received prophylactic antirabic treatment. Fortunately, no human cases have occurred. An undetermined but considerable loss of livestock, including mules, cows, hogs, dogs and cats has been established, the greatest loss occurring in Burke County. One prominent farmer reports that his loss of cattle exceeded $400.00. Strangely enough the incidence of rabies in dogs in this county has been surprisingly low.

While both the red and the gray fox are found in Georgia, the latter predominates in South Georgia, while the red fox prevails in the northern half of the state. It is of interest to note that of 50 rabid foxes, 49 were gray and only one red. Of 46 rabid foxes 27 were males and 19 females.

Rabies in wild foxes has been reported by the South Carolina Board of Health Laboratory—in 1937 (7 cases), 1938 (8 cases), 1939 (9 cases), and in 1940 (7 cases). Several of these cases occurred in the territory adjoining Burke County, Georgia, and it seems quite possible that the present epizootic may have originated in South Carolina, and that it has progressed thence slowly west and southwest into Georgia.

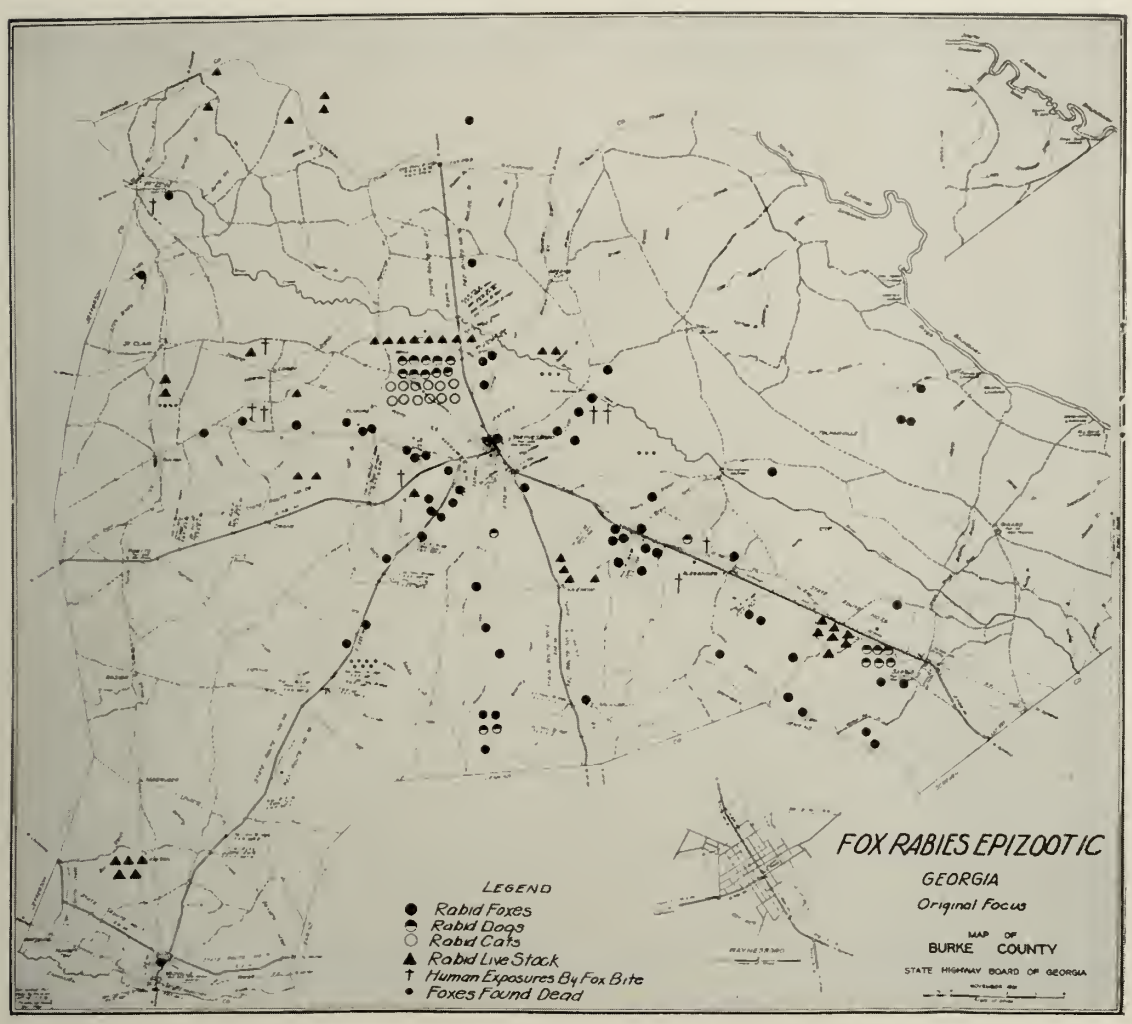
The accompanying map of Burke County shows the approximate location of human exposures, and of livestock and domestic animals dying of rabies from exposure to foxes. The actual number of rabid foxes is not shown.

In pursuance of trapping foxes by federal wild life trappers a number of other kinds of wild animals thus were caught and examined. These included 12 raccoons, 11 bobcats, 8 possums, 2 skunks, 1 squirrel, and 1 owl. With the exception of 1 skunk, none of these was found rabid.

A large part of the laboratory investigation of this outbreak is being done by the Rabies Research Laboratory of the Rockefeller Foundation, operating under the auspicies of the State Board of Health of Alabama. At this laboratory the brain and salivary glands of the fox specimens are tested for the presence of rabies virus by mouse inoculation. In comparison with a similar study of dogs dying of rabies after experimental infection, it can be stated that the salivary gland of the fox is more often infectious than that of the dog. One can deduct from this that the rabid fox is potentially a more potent disseminator of the disease than the dog.

Not only is the present situation alarming to the public, especially in the territory involved, but it can easily be conceived that as the disease spreads it will establish a new wild animal reservoir of rabies that will be difficult to control. The epizootic threatens to reach interstate proportions in that it is already known to exist in North Carolina, South Carolina, Tennessee and Alabama.

The most plausible explanation of the magnitude of this outbreak is that the wild fox population throughout the Southeast has greatly increased in number and density during the past few years. Fox hunters and students of wild life confirm this. Bird hunters attribute the increasing scarcity of both quail and dove to the destruction of eggs and young birds by foxes. If this be true the obvious solution to the problem of control will be the reduction of the wild fox population to such extent that contact transmission of the infection from fox to fox cannot readily take place. Methods of accomplishing this objective are being studied. It is neither practicable nor desirable to aim at the complete extermination of this animal. That this is unnecessary is indicated by the fact that prior to the recent



increase in population, rabies in foxes was exceedingly rare.

To date the major efforts have been devoted to an attack on the disease at the center of the epizootic rather than working around the periphera. Inadequacy of funds has precluded the possibility of an attack on a wide scale. It is probable that the disease in this animal is self limited and when the fox population is reduced to certain limits, through disease or slaughter, fox rabies will be of infrequent occurrence. A far more economical method of control would be to drastically reduce the fox population not only in the epizootic area, but wherever there is an over population.

The Cinchona Products Institute, New York City, does not anticipate a shortage of quinine in this country. The Institute further states that if such reports of a shortage of quinine were true, it would be serious.

Intelligent attempts of teachers to facilitate lip reading by pupils with defective hearing would be a tremendous advantage to such children in their school work, Louise M. Neuschutz, New York, suggests in *Hygeia, The Health Magazine* for December.

"For such pupils," she says, "a front seat near the window is almost a prerequisite. The face of the teacher should be in the light, so that the hard of hearing pupil can watch her lips. To speak as naturally as possible, moreover, avoiding exaggerated lip movements is the best way to help him. Word for word utterance is to be avoided. Eyes and mind cannot take in particles of speech; the lip reader must have a full sentence in view before he will be able to get at the context. Shouting and gesticulating will only serve to upset him, and he won't be able to understand anything. In case a sentence is hard to read from the lips, its phrasing might be changed, thus making it easier to see."

The Fulton County Medical Society announces that the Seventh Annual E. Bates Block Memorial Lecture by Dr. John Farquhar Fulton, New Haven, Conn., Professor of physiology of Yale University, will be given at the Nurses' Home, Crawford W. Long Memorial Hospital, Atlanta, February 27.

The Bureau of Health Education of the American Medical Association offers to local physicians the loan of prepared material for speakers addressing lay audiences.

CARRIERS OF AMEBIC DYSENTERY AMONG STUDENTS AT THE UNIVERSITY OF GEORGIA SCHOOL OF MEDICINE

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Augusta

As part of the routine procedure of instructing the sophomore classes in the Department of Bacteriology and Public Health, each student is required to make an examination of his stool specimen for presence or absence of amebic cysts. Each of these stool specimens is checked by the professor and the various findings of the students noted. In this way the laboratory is usually furnished with excellent material for teaching purposes and at the same time a fairly accurate stool survey is made of the students from year to year. The present report covers a period of six years.

The procedures for making these examinations is rather simple. However, the diagnosis of amebic carriers and cases of amebic dysentery is sufficiently difficult to lead one to emphasize the fact that special experience, skill and facilities are essential for accurate reports from laboratories. In the direct examination of a fresh specimen a bit of the fecal material is emulsified on a slide in a drop of saline by means of an applicator. A cover glass is then placed over the fecal emulsion and the preparation examined for tiny bead-like cysts, first using the low power lens of the microscope. When the substage light is properly adjusted, any cysts of amebae that may be present stand out very clearly as highly refractive clear beads. The preparation may be quickly covered by the use of the low power lens. If no cysts are noted, several additional preparations are made and examined before a negative result is recorded. If, however, refractive bead-like cysts are seen, the high power lens is used and the type of cyst studied. Chromatoidal bodies which are of great diagnostic value may be observed best in this saline preparation. Glycogen bodies also may be noted when present. If amebic cysts are seen, another preparation is made from the stool specimen using a drop of iodine solution* in which to emulsify a bit of fecal material. A cover glass is placed over the emulsion and the slide examined under the high power lens. In this preparation, the presence of nuclei may be observed and the number and morphology of the nuclei studied in order to differentiate the various species. If cysts conforming to the special features of *E. histolytica* are observed, part of the stool is cultured on a Loeffler's slant.** Three cubic centimeters of a saline solution of cow serum (one part serum to four parts saline) is next pipetted onto the inoculated slant and the feces emulsified with an applicator. Several granules of rice starch are dusted into the tube. The culture is then incubated at 37° C. for twenty-four to forty-eight hours and the presence of actively motile amebae studied. Often the cultured amebae are engorged with rice granules. In the past six years, five of the classes have had at least one carrier of *E. histolytica.*

Chart 1 shows the distribution of the carriers of the various species of intestinal amebae in the sophomore classes from year to year. The carrier rate for *E. histolytica*, the species responsible for amebic dysentery, was found to be 4 per cent in the 245 students examined. Repeated examinations of those students originally found to be carriers, and who were not treated, remained carriers for the duration of their training at the medical school. There were 42 students infected with at least one species of intestinal amebae or a carrier rate of 17 per cent.

The only way an individual may become infected with any one of the intestinal amebae is by taking amebae in the cystic stage into the mouth. Food contaminated by flies or by food handlers who are themselves carriers is the most likely source for infection. It is most interesting to observe that all the students infected with *E. histolytica* came from the larger centers of population in Georgia. A distribution of

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*Iodine solution is prepared: Potassium iodide — 5 grams, Iodine — 2.5 grams, Distilled water 92.5 cc. Solution is diluted 50-50 with distilled water just before use.

**Liver infusion agar slant may be used. Difco preparation called Entamoeba Medium may also be used.

Chart Number I

Various Species of Amebae Observed

Sophomore Class	Students Examined	Endameba histolytica	Endameba coli	Endolimax nana	Iodameba butschlii	Dientameba fragilis
1935-36	33	1	6	3	0	0
1936-37	35	0	2	4	0	0
1937-38	42	1	3	6	0	0
1938-39	45	2	1	4	0	0
1939-40	42	2	3	3	0	0
1940-41	48	4	2	4	1	0
Total	245	10	17	24	1	0
Carrier Rate		4%	7%	10%	0.4%	0%

Chart Number II

Comparison of Carrier Rates for E. histolytica From Various Surveys Made in the United States

Authors	Group Examined	State	Number Examined	Positive Percentage
Williamson, Kaplan and Geiger (1)	Hotel Food Handlers	Illinois	1148	2.3%
Tooney, Hoeft and Spector (2)	Hotel Food Handlers	Illinois	364	7.1%
Creswell and Wallace (3)	Food Handlers	Washington	408	1.2%
Johnstone, David and Reed (4)	Prison Food Handlers	California	250	7.2%
Johnstone and Iverson (5)	Food Handlers	California	747	2.9%
Sapero and Johnson (6)	Naval Recruits	Misc. States	206	11.3%
Meleney (7)	Hospital Routine	Tennessee	2112	3.0%
Hinshaw and Showers (8)	Hospital Routine	Pennsylvania	535	1.1%
McDaniels, Burton and Arnold (9)	Hospital Routine	Illinois	384	6.3%
Wenrich, Stabler and Arnett (10)	College Freshmen	Pennsylvania	1060	4.1%
Dienst	Medical Sophomores	Georgia	245	4.0%
Average Rate	All Groups			4.5%

the students who were found to be carriers of *E. histolytica* shows:

3 students from Atlanta
2 students from Savannah
2 students from Thomasville
1 student from Macon
1 student from Augusta
1 student from Athens

One of the probable explanations for this observation is that most of the students from these larger cities have been more often exposed to food prepared by a greater assortment of food handlers.

Chart 2 gives a comparison of the carrier rates of *E. histolytica* from various surveys recently made in the United States. The rate of 4 per cent found among medical students in Georgia is about what might be expected.

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ACUTE BRONCHITIS

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Introduction

Acute bronchitis is an acute catarrhal inflammation of the mucous membranes of the bronchi. The involvement is bilateral. When signs and symptoms indicate the limitation to one lung or one lobe of a lung, then some disorder other than just bronchitis is strongly suggested. It affects the larger and medium sized bronchi. The very fine bronchioles or capillary bronchi may be involved, giving rise to a bronchiolitis or capillary bronchitis. Such a condition merges into and becomes a bronchopneumonia, and is best discussed under that caption. The trachea is frequently involved and we have the picture of an acute tracheobronchitis, so often seen in the outbreaks of acute respiratory diseases. It generally is the downward sweep of an acute head cold. The parade is an orderly one: the head cold with its coryza, rhinitis, sore throat and perhaps sinus congestion; the transient laryngitis with its huskiness, hoarseness or loss of voice; and finally the extension into the trachea and bronchial tubes. As symptoms present themselves at the lower levels, they fade in those above. By the time the bronchitis is well established, the stuffy head, sore throat and husky voice have subsided, or are doing so. This symptom complex is glibly called the "flu" (influenza); but when occurring in epidemics, with the usual increased severity of symptoms and serious complications, the term is well chosen. While very often the bronchitis is just a part of a more general respiratory infection, it may occur as a clinical entity, the whole inflammatory process being confined to the bronchial tree. Many individuals are especially susceptible to attacks of acute bronchitis, and have one on the slightest exposure, or following a mild indiscretion. Often such individuals lapse into the subacute or chronic bronchitis group the acute attacks being exacerbations of the underlying bronchial disorder.

An acute bronchitis may be associated with, or is a part and parcel of, other diseases. Notable among these is measles. Typhoid fever, and at times malaria, are ushered in with a bronchitis. It occurs in whooping cough and in attacks of asthma.

The etiologic factor in most instances of acute bronchitis is a bacterial one. Undoubtedly, allergy, that bio-chemically mysterious phenomenon of chilling, and the inhalation of chemical irritants make their contribution. Even here the role of bacteria cannot be completely separated from the causitive agency. Until the advent of modern warfare, and with it, the use of poisonous gas as a combatant weapon, acute bronchitis from the inhalation of an excoriatic was only occasionally seen, and then as a result of some industrial accident. Let it be hoped that humanitarianism will eventually prevail, this fiendish and unholy implement of war discarded, and once again the bronchitis from such a cause be seen only as the occasional industrial case.

Acute bronchitis is seen at any age but is particularly common toward both extremes of life. Individuals who pursue a hardening existence out-of-doors seem definitely more resistant than those leading a sheltered one. Every doctor has seen those patients all bundled up in heavy underwear, overshoes and neck muffler, meticulously avoiding draughts and even wholesome fresh air, in an effort to ward off the bronchitis attack to which they are so susceptible. Usually, this bundling is the cause rather than the result of such attacks. To persuade them to desist from these particularities is usually not only a thankless task but also a hopeless one.

The changeable weather in the early part of the spring and toward the latter part of the fall, are the times when attacks of acute bronchitis are most prevalent.

Symptoms and Course

Acute bronchitis is usually a mild disease, and severe only in the exceptional case. The onset is usually ushered in with a slight chilliness, a raw feeling on moderately deep inspiration under the sternum, and a sense of tightness or oppression in the chest. Rarely a hard chill opens the

scene. As mentioned before, it is frequently a downward extension of an acute head cold. As a rule acute bronchitis is accompanied by no or only a very slight fever. In the severe attacks, temperatures of 101 to 103 F. are seen. High temperatures are more frequent in infants and young children. Headache, lassitude and general malaise are commonly a part of the clinical picture at the onset and in the early days of the disease. Cough is an early and constant symptom. At first it is hard and dry, occurring in paroxysms which rather painfully rack the body. This often results in varying degrees of soreness, particularly over the lower costal margin and the upper abdomen. A severe paroxysm of coughing often leaves the patient quite exhausted, dyspneic, the face and neck suffused and the pulse rapid. This picture is particularly common in the alcoholic, obese, and young children. There is little or no cyanosis in the uncomplicated cases. Dyspnea, except after a coughing spell or in the presence of considerable fever, speaks against a simple attack of acute bronchitis. It is the rule in the acute bronchitis of asthma. When associated with fever and cyanosis, an extension into the capillary bronchi may be suspected. The acute attack usually lasts a few days to a week, and convalescence should be well established in another few days. After 48 to 72 hours the expectoration, which has been scant and viscid, becomes thin and more profuse. With this change in the character and amount of the expectoration, comes a sense of relief and a subsidence of the acute symptoms. A mildly productive cough, after a complete recovery otherwise has taken place, may persist for a few weeks. This is frequent in tobacco smokers. A cough which "hangs on" should always, however, direct suspicion toward some other bronchial or pulmonary mischief. Notable in this regard is pulmonary tuberculosis.

There is little invasion into the general physiologic economy following an attack of acute bronchitis. A sense of well being and a full return to the previously normal state of health is experienced after a fortnight or less. In the influenzal group, however, that mean feeling, often accompanied by a depressed state and marked weakness, may linger for several weeks. Someone aptly remarked "you are certainly sick a long time after getting well."

Diagnosis

The diagnosis of an attack of acute bronchitis is quite easy in most instances. The evolution of symptoms, the racking cough, the examination of the chest with the usually few or no signs, and the general clinical picture readily speak for the condition. In those instances when the onset is abrupt and accompanied by rather severe symptoms, pneumonia may be suspected. The absence of localized physical signs — friction rub and bronchial breathing — make the differentiation. The acute bronchitis of measles, whooping cough, typhoid, etc., must be diagnosed, of course, in the light of the specific characteristics of these respective diseases. Pulmonary tuberculosis may, and unfortunately not too rarely, first manifests itself as an acute respiratory episode. Where there is the pointing finger of suspicion, repeated examination of the sputum for tubercle bacilli and, finally, x-ray films of the lungs should be made. Miliary tuberculosis very often manifests itself at first as an acute bronchitis. There are either no abnormal physical signs or only a few scattered wheezes or moist rales. X-ray examination shows the diffuse miliary seeding throughout both lungs.

Case Report

Mrs. F. W., aged 32, consulted her doctor because of sore throat, generalized aching, fever and cough. The onset was acute and the whole clinical picture resembled that of an acute pharyngitis and bronchitis. He reported hearing diffuse rales and squeaks throughout the chest, and sent her to a roentgenologist for an x-ray examination of her lungs. The latter reported miliary tuberculosis. The patient was referred to me at this time. She did have a pulmonary miliary tuberculosis. The scant sputum raised contained no tubercle bacilli. She pursued a steadily down-hill course and succumbed after several weeks. The pulmonary signs and symptoms were never very pronounced. The patient had more the appearance of a septic typhoid patient during the closing weeks of her illness.

Acute congestive heart failure with its cough, rales at both lung bases and dyspnea, may be mistaken at times for acute bronchitis. Attention to the history and circu-

latory features of the case should make for ready differentiation.

Diffuse moist, sibilant and squeaky sounds may occur in the ordinary case of acute bronchitis but are not the rule. In the average case only the trachea and larger bronchi are affected and they produce few or no physical signs. With excessive secretion, moist or bubbling rales are present. In the beginning of the attack diffuse sibilant rales may be present which vary with the patient's position and tend to clear after a paroxysm of coughing. Palpable rhonchi or bronchial fremitus is usually present. These noisy signs are more often encountered in the recurrent bronchitis or acute exacerbation of a chronic bronchitis. This picture is also frequently associated with infection of the paranasal sinuses, and with allergic states. In the aged, debilitated and young children, a downward extension into the capilliary bronchi is not uncommon. The patient becomes clinically quite ill, and the condition a serious one. In these cases especially, the lung bases should be carefully watched.

Treatment

The very mild cases require little more than the usual household care and attention to factors that may aggravate the condition. All febrile patients should be confined strictly to bed and kept there until the temperature remains normal for at least 24 hours. The sick-room should be maintained at a comfortably warm temperature and free of draughts. The air should be kept moist. At the onset, an initial purge, a dose of Dover's powders (10 grains) and a hot poultice to the whole chest is a popular form of management and one which often serves well. For the hard irritative cough, an opiate serves a most useful purpose. Codeine and dilaudid hydrochloride have been found, by the author, to be very suitable. A very serviceable prescription is:

Dilaudid gr. ½.
Elixir terpene hydrate ad qs oz. IV.
Sig. —1 teaspoonful every 3 hours.

Caution must be exercised in the use of opiates in the feeble and aged where there is bronchial secretion.

The soreness and tightness in the chest are greatly relieved by the application of flaxseed poultices and mustard plasters. The former should be kept hot by covering with oil silk. The mustard plaster may be applied every six hours, and remain on the chest until the skin is pink. When made in the strength of one part mustard to three of flour, this ordinarily requires 15 to 20 minutes. Occasionally a patient falls asleep under the warm soothing effect of the emplastrum, and a nasty mustard burn results. The rawness in the chest may be considerably alleviated by the inhalations of compound tincture of benzoin in the proportion of one teaspoonful to a quart of boiling water. Expectorants, such as ammonium chloride, play a useful role following the initial phase and when the secretions become viscid or tenacious. They should not be used routinely; and when secretions and expectoration are free or excessive there is no need for them. Iodine seems definitely to have therapeutic virtue in the treatment of acute bronchitis. Hot baths at frequent intervals have many advocates, but the writer feels that the effort and at times the exposure incident to them, may cause more harm than benefit. In children, a fever mixture is often indicated.

The diet should be light and include hot drinks as milk, broth, cocoa, etc. As convalescence is entered the diet should be gradually augmented until a full diet is resumed. At this time or subsequently, tonics may be in order. Cod liver oil, arsenic, iron and, of course, vitamins, are the favored ones. A change in climate is to be recommended in some instances.

Vaccines, so-called "cold shots," have been rather extensively employed in an attempt to prevent these infections, and to a less extent as a therapeutic agent. One must not too quickly condemn them as being devoid of any virtue. The patients themselves constitute a court of appeals that should not be disregarded, and there is an ever-increasing abundance of testimony from this quarter that the cold vaccine may be a definite aid. I am sure it has been the experience of most of my readers to have more and more of their patients return during the succeeding years

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THE PRESIDENT'S PAGE

A COUNTRY DOCTOR'S DAY

With apologies to Osler, Samuel Pepys, and Fishbein, I shall describe my activities for a more or less typical day.

Ate breakfast, and to the office, which is downstairs in the hospital. First, saw a man who was waiting, suffering from renal colic; ordered a hypodermic of morphine and x-ray of his G.U. tract made while I went upstairs to make rounds and begin operations.

Made rounds hurriedly. Assuming that a list of those I saw might be of interest to you, I shall enumerate them: first, postoperative hysterectomy for fibroids; then a case of salpingitis; next an old lady eighty-two years old with a fractured hip; postoperative acute appendix; influenza in an old lady; postoperative toxic goiter; acute appendix; abscessed breast; influenza bronchial pneumonia; appendiceal abscess (these have become rare because the doctors in this vicinity as a rule send them in early); cirrhosis of the liver in a man who looks on the wine when it is white instead of red; next an inguinal hernia; then a man with a fracture, a month old, of the radius and ulna, in whom the muscle between the fragments of the radius prevented union; three maternity cases, with their offspring; and an incomplete abortion. Then to the Negro ward where there were two postoperative hysterectomies for fibroids; an old colored woman with arthritis; a gunshot wound of the abdomen in a man who had a bullet wound through his liver, causing two punctured holes in his colon and four in the small intestine, who now has a liver abscess, which we had drained, and he is recovering; a postoperative strangulated hernia; a chest injury (automobile accident); and, finally, a young Negro boy with an abscessed appendix.

Now to the operating room where the first case was one of salpingitis (old); then a diagnostic curettage on a young woman recently married, who had been bleeding for four months; then the removal of the muscles from between the bones of the radius and wiring the fragments together; drainage of the appendiceal abscess, inserting a Babcock pump suction drain; then a circumcision in a newborn; finally, the insertion of a suprapubic catheter in the bladder of an old man who had prostatic obstruction and who had had two strokes of paralysis.

Hypernephroma of right kidney.

Back to the office where the renal colic man was given sulfathiazole and told to report back in three days for cystoscopic examination; then a foreign protein injection in a young white boy who had arthritis of the knee and who had improved considerably under these injections and salicylates; dressing a foot, from which I had removed a cyst a week before; prostatic massage and injection of foreign protein in an old G. C. prostatic infection; liver extract in the hip of an old lady for pernicious anemia; a new case of influenza; and then a very interesting enlargement in the abdomen of a five-year-old Negro girl, which enlargement was said to have appeared and rapidly increased within the past two months. We had been studying this girl for several days. After various tests were completed, we had all made tentative diagnoses of hypernephroma of the right kidney. Subsequent operation and pathologic report showed a highly malignant sarcoma of the right kidney.

Slipping away for lunch, I snatched my gun and went to a benne field to shoot doves, where I arrived late, but managed to bag the limit, and, if the game warden doesn't

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HYPERTENSION IN THE SURGICAL CANDIDATE

Hypertension is perhaps the most common malady of organic origin encountered by the private practitioner. It has been estimated that about twelve per cent of all patients seeking medical care present a persistently elevated blood pressure. Nearly one-fourth of all deaths are attributable to hypertension and its sequelae.

Hypertension, as well as most conditions requiring major elective surgery, tends to make its appearance in later life and the physician is often called upon to determine the amount of added risk involved and make a decision as to the feasibility of operation. In making such a decision he must avail himself of all the clinical data obtained from a careful history and physical examination and call upon the laboratory to fill in the gaps. In considering such a problem, three things must be determined: the amount of cardiac reserve, the amount of renal damage and the degree of arteriosclerosis present, for in the main it is the presence of these three conditions that increases the risk.

Heart disease resulting from hypertension is commonly manifested by hypertrophy, arrhythmia and a lowering of the cardiac reserve. If the heart is normal in size with a regular rhythm and there is no history of dyspnea, evening edema of the lower extremities, or substernal pain after exertion, one can rule out with a fair degree of certainty cardiac damage. Similarly, if there is no history of polyuria, nocturia and if there is negative urine with a specific gravity on any one specimen above 1.018, the renal function can be considered adequate. If the hypertension is associated with renal insufficiency due to mechanical obstruction operative relief of the obstruction will frequently result in a lowering of the blood pressure and improvement of the kidney function. Examination of the retinae and palpation of the peripheral arteries will generally ascertain the presence and degree of arteriosclerosis. The determination of arteriosclerosis is particularly important as regards the status of the coronary circulation, as some degree of arteriosclerosis is usually seen in the peripheral arteries when there is coronary sclerosis. If coronary disease is suspected an electrocardiogram is indicated to determine more accurately its extent. The presence of electrocardiographic evidence of coronary disease indicates a bad prognosis even without surgery.

The discovery of any of these diseases materially increases the operative risk, the amount of increase depending on the severity of the lesion, and the indications for surgery should be absolute. If operation is imperative it is wise to institute the proper measures, such as digitalization of the patient with lowered cardiac reserve, and careful regulation of fluids in the nephritic. In uncomplicated essential hypertension of long standing, encephalopathy sometimes occurs. These crises are always preceded by a marked rise in both the systolic and diastolic pressures, which is usually sufficient to give adequate warning. The prognosis of hypertensive encephalopathy is rarely longer than one year and would therefore preclude surgery of the elective type.

Essential hypertension per se does not materially increase the operative mortality. The patient with high blood pressure does not bleed more profusely than his hypotensive brother, provided his clotting mechanism is normal. The convalescent period is usually smooth and sudden deaths are extremely uncommon. However, it is logical to assume that surgery places an added burden upon the hypertensive patient, and it is well to be thoughtful in the choice of premedication and an anesthetic. Thorough preoperative sedation combined with a local anesthetic is probably the method of choice. Fluids should be used with particular care, as in most cases of hypertension there is an increased blood volume and the chance of overloading the circulation is greater.

BERNARD P. WOLFF, M.D.

QUO VADIS

When someone says, "I don't think I'll attend the medical meeting," the traditional program is often to blame. Medical meetings can be such drab, unappealing affairs, when the papers are long and uninteresting, when they are but recapitulations of what Dr. Bigshot this or Dr. Bigshot that has said, or when the speaker seeks to impress the brethren by making his paper so technical that it goes over everyone's head. What's more they are likely to be an attempt to establish claims for much that has in no way been proven and lack scientific value. Sheer monotony may lie behind the complaint. Our programs will get into more of a rut if we don't take advantage of the wide variety of diseases seen in our own State to be presented. Then, too, one grows weary of listening to the same speaker or hearing reports of diseases of such rarity that one can't help but question the diagnostic ability of the reporter.

On occasion, the combining of two meetings, such as Albany and Rome, Columbus and Athens, Savannah and Atlanta, Macon and Augusta or LaGrange and Waycross, might lead to new and exciting adventures in medicine and perhaps invalidate the subversive efforts of the medical Quislings to destroy the esprit de corps of Georgia physicians.

Hardly anyone will quarrel with the statement, so frequently encountered these days, that the medical profession is faced with increasingly difficult problems. The children of Aesculapius may, indeed, have to go a long way down the road of sweat and blood and tears before they solve these problems. And yet some Quislings in our profession—most of them highly articulate and sometimes plausible—have seized upon this opportunity to loosen a pharisaical bunch of baloney against our leaders in an attempt to sabotage organized medicine. Their formula, with its variations, is taking on a peculiarly obnoxious popularity. The isolationist members of our profession—those physicians who either refuse to join a medical society or never attend their meetings—are unintentionally, perhaps, aiding, and abetting the efforts of the Quislings to control or sabotage our only defense measure, organized medicine. If I seem to overemphasize the Quislings, its because they are undermining our organization and our profession. A whispered bit of malicious gossip about a fellow practitioner, sowing seeds of doubt about the sincerity of our leaders, attempting operations or treatment of diseases for which they are unqualified, creating discord between city groups or distrust of the city physician by the small town practitioner and a thousand other detestable things at which the Quislings are peculiarly adept, have caused many people to believe physicians have no esprit de corps.

Facing the situation realistically, the question becomes one of hanging together or hanging alone. If we delude ourselves into believing that our problems can be solved by rugged individualists who do not attend medical meetings, the Quislings will take over and we'll hang alone. If we are willing to make a few insignificant sacrifices of time and effort to strengthen our defense organization and its leaders and then hang together, we can surmount all perils. Yep, these medical meetings are often drab affairs, but come on, let's go and pep it up.

Newdigate M. Owensby, M.D.

DEFECTS IN DRAFTEES FOR MILITARY SERVICE

In order to have a basis for estimating prevalence of defects among registrants for military service under the conscription act of 1940, the United States Public Health Service has reanalyzed certain results of the medical findings for the World War draft of 1917-18.

Twenty-one per cent were rejected for military service, 31 per cent classified as not available for general military service (including the rejections), and 52 per cent had one or more recorded defects. These figures for the last war were summarized by Rollo H. Britten, Senior Statistician, and George St. J. Perrott, Chief, Division of Public Health Methods, Public Health Service. (Public Health Reports Vol. 56, No. 2.)

Defects per 1,000 total drafted men in

1917-18 follow:

Orthopedic impairments	213.16
Eye defects	61.01
Cardiovascular-renal diseases	50.20
Underweight	31.11
Hernia and inguinal rings	55.36
Tuberculosis (all forms) actual or suspected	21.71
Defective or deficient teeth	26.27
Nervous or mental diseases	21.53
Ear defects	15.45
Venereal diseases	46.77
Varicose veins, varicocele	8.75
Goiter	11.38
Hypertrophic tonsillitis	33.77
Arthritis and allied affections	3.48
Asthma	2.33
Other diseases or defects	53.56
All diseases or defects	661.94

"On the basis of the World War draft of 1917-18, one might expect that, to meet the quota of 800,000 inducted men by July 1, 1941, 1,200,000 would have to be examined and thus that about 400,000 would not be available for general military service," the co-authors stated.

These figures may be used as the basis for considering a program of physical rehabilitation of registrants disqualified for general military service under the conscription act of 1940, according to the Public Health Service. It was indicated that the most frequently occurring remediable conditions in this group of disqualified persons would be: defective vision, underweight, tuberculosis, defective and deficient teeth, hernia, and venereal diseases.

RESULTS OF EXAMINATIONS OF DRAFTEES

Rejection of one-third of the men applying for army service in the New York area is remedial by medical care only to a small extent, according to the January issue of the *New York State Journal of Medicine*, official organ of more than 17,000 physicians of the state.

"The defects for which men are being rejected by the army examiners," the *Journal* says, "are those structural and psychologic weaknesses upon which the strenuous nature of field training could be expected to have a detrimental effect.

"The point of view of the army and of civilian medical examiners might be expected to vary considerably concerning the acceptability of certain risks and thus to account for the high percentage of rejections. They should not be taken too seriously even by constitutional pessimists. And, after all, what can be done for flat feet, bow legs, and perforated eardrums?"

Unfitness for medical service is not necessarily an index of health, according to the *Journal*, though "some of our socialist acquaintances start right away to yell louder for state medicine."

The *Journal* continues: "There is reason to believe that we are far healthier now than at the time of the last war. Tuberculosis, for instance, has declined as a cause of mortality 75 per cent more or less in the last twenty-five years, 'among men of draft ages insured in the industrial department of the Metropolitan Life Insurance Company.

" 'At the draft ages the reduction in heart disease mortality has been 40 per cent for white and 60 per cent for colored men between 1911-15 and 1939. As an indication of health conditions at ages 25 to 44 the mortality of white policyholders has decreased by two-thirds—from 11.1 per 1,000 in 1911, to 3.6 in 1939. The most substantial contribution toward the reduction in the total mortality rates comes from the marked improvement in the death rate from tuberculosis. The death rates (from 1911 to 1939) per 100,000 fell from 509.0 to 61.8 for white males and from 277.1 to 40.6 for white females.

" 'The mortality from syphilis, appendicitis has fallen markedly. The death rates for the group under review, per 100,000 for organic heart disease among white males, have dropped from 61.9 in 1929 to 50.2 in 1939; for cerebral hemorrhage from 12.0 to 10.6; and for chronic nephritis from 28.6 to 15.3.' "

Concluding the discussion, the official spokesman for the New York State Medical Society says: "As men are called for the draft, it is inevitable that there will be many rejected as physically disqualified. For years, physicians, educators, and many

others have collaborated on a campaign urging periodic health examinations. Every facility has been offered which the ingenuity of man could devise to induce public cooperation in such a movement. If results have not equalled expectations, the system of providing medical care is not at fault so much as the impassable threshold of complete popular acceptance."

A COUNTRY DOCTOR'S DAY

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see this, possibly a few more. Back to town, and late to a meeting of the Loan Committee of the Bank, where a minimum requisite for a loan is two mules and the hope of a bale of cotton, the two mules being necessary because one might die, and the hope of the bale of cotton being all that keeps the farmer farming. Back to the hospital to make rounds, home to supper, then to a bridge game until late, where Lady Luck went sadly against me.

While I was playing around, Doctors Elliott and Martin really did the work by seeing in the office and making calls, including those I saw, sixty-three patients. It is not such a bad life, but we need more doctors in the country.

J. C. Patterson, M.D.

ACUTE BRONCHITIS

(Continued from page 62)

requesting vaccine. Perhaps it is another instance of "the proof of the pudding." In administering the vaccine, a workable plan is to give about eight injections (subcutaneously) at intervals of 2-3 days. The first dose should be about 1/8 cc. and increase gradually until the final dose approximates ¾ to 1 cc. Severe reactions are to be avoided. Such courses may be given in the spring and in the fall. It may be wise to give one or two injections at the onset of the cold. Recently cold vaccine in capsule form has come into some vogue. The author's experience has been limited to Entoral, a preparation made by the Ely Lilly Co. The results so far appear favorable.

The hypodermic injections of certain protein preparations seem to be helpful. Omnadin and Proteolac in 1 and 2 cc. doses are examples of these. They may be continued as long as indicated.

Of late the intrabronchial injection of iodized oil has been advocated in the treatment of acute bronchitis. The author has had little experience with this method in the acute conditions. The technic of the treatment is simple and with a little experience can be mastered.

BEGINNING TO PRACTICE

When you enter a new community, appearance is important. You do not have to have the most expensive clothes but what you wear can look well on you. Your car does not have to be new, but it can be respectable looking. Above all, cleanliness will make or lose a practice quicker than almost anything. After you have been out a few years, check yourself with your confrere as to whether you are keeping up to date. Have you attended meetings and read your medical journals? . . . As early as possible, become a member of your county and state society and meet with your fellow practitioners. Being charitable to the other doctor in your community is most important. . . . If you disagree with the other man's opinion, regardless of how bad his judgment has been, a kind interpretation of the case will make all happier, including the patient. Whenever possible, associate with men you have to look up to. This thought applies to business men as well as men in the profession. They are stimulating and will give you a subconscious lift. In your early practice associate yourself with dispensary services and charitable enterprises. It not only improves your knowledge but allows you to rub elbows with many people of value to you throughout your professional career. Always treat those in work associated with medical practice with kindness and respect. Although you will see doctors who will be unkind to nurses when they can't talk back, remember they have been taught to look up to you. See that they are able to.—Sproule, Ralph P.: A Doctor Speaks to Students, *Marquette M. Rev.* 5:1 (Nov.) 1940.

"Incubator babies," if they survive, do not become midgets but grow to normal size unless they are abnormal in other ways, *Hygeia, The Health Magazine* says in answer to an inquiry. A child is an "incubator baby" because it is born prematurely and is therefore small. Midgetism is due to other causes than premature birth.

The Journal *would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

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NATIONAL SURVEY OF REGISTERED NURSES FOR NATIONAL DEFENSE

The Georgia State Nurses' Association is co-operating with the Nursing Council on National Defense in the survey being made to determine preparation and availability of National nurse power.

Miss Durice Dickerson, Executive Secretary, G. S. N. A., has been appointed Special Agent of the United States Public Health Service to represent Georgia in this substantial program of work. Miss Dickerson attended a conference held for the State Agents January 10th, at the auditorium of the U. S. Public Health Service in Washington, where details of the program for National Inventory were discussed and final plans were made to launch the survey simultaneously in every state in the United States and its dependencies.

On July 29, 1940, at the request of Julia C. Stimson, President of the American Nurses' Association, a representative group of nurses met in the conference room at National Nursing Headquarters in New York to consider the place of nurses and nursing in the plans for national defense.

The outcome of this meeting was the organization of a Nursing Council on National Defense. This Council is made up of the presidents of the three National Nursing Organizations and representatives of the Federal Nursing Services, including the Army, Navy, Veterans' Administration, Children's Bureau, Indian Service, Public Health Service, and the Red Cross Nursing Service.

The functions of the Council are:

1. To determine the role of nurses and nursing in the program of national defense.
2. To unify all nursing activities which are directly or indirectly related to national defense.
3. To study nursing resources and to plan the most effective use of these resources; to provide for necessary increases; and to set up the machinery which will insure the quickest possible functioning in case of need.
4. To act as a clearing house regarding nursing in national defense, and to cooperate with other agencies having related activities and functions.
5. To insure the continuance of the high quality of nursing schools in order that effective nursing may be maintained in a national emergency.

One of the first projects proposed by the Nursing Council was a national inventory of the nursing forces of the country in order that experience and qualifications of all nurses will be available when selecting personnel in the event of an emergency. Upon the request of the Council, the United States Public Health Service has agreed to serve as official sponsor of this project, and the National Nursing Organizations as the co-sponsors.

Georgia's Inventory

Clerical assistance is being given this program by NYA. The basic list (which is the professional membership in Georgia) as well as a supplementary list (composed of every registered nurse in Georgia) are being addressed at this time, and every Georgia R.N. should receive a questionnaire if we are able to secure their names and addresses.

Refresher Courses for Inactive or Retired Nurses

Georgia hospitals have been requested to offer refresher courses to nurses who have been inactive, in order that they may come back into service better prepared to contribute to home defense service or service abroad if qualified. There are, no doubt, a large number of available nurses in the inactive or retired group who will be glad to respond to this emergency need.

Notices of this Inventory have been given all Georgia hospitals, nurses' registries, Public Health agencies, Medical Auxiliaries and special groups, urging their cooperation and assistance in publicizing the program and by helping nurses to answer questionnaires.

Registered Nurses

If you are a graduate R.N. residing in Georgia or elsewhere, and have failed to receive a questionnaire or if you know of an R.N. who has not received one, please communicate with Durice Dickerson.

Doctors Can Help

Doctors come in close contact with nurses, and realize the significance of this substantial program. We request Georgia doctors to give every assistance possible to make this a successful survey. Success will mean that every R.N. has answered the questionnaire.

(Continued on page 76)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. Abercrombie, M.D., *Director*

SOCIAL AND ECONOMIC BETTERMENT INFLUENCES PUBLIC HEALTH

Georgia's population has enjoyed greatly expanded health protection by sanitation during the past few years. This service has been furnished to both rural and urban populations. It has been applied to both home and school. Rural sanitation at home and school has been a contributing factor to a marked reduction of typhoid fever and other related diseases. During the past five-year period with an intensive sanitation program, together with other contributing factors, there has been a greater reduction of typhoid than in any previous period. Malaria has also been greatly reduced. There has been a continuous growth of appreciation of health protection by sanitary measures.

In recent years a great humanitarian wave has spread over our country. Because of an endeavor for social security, we have greatly reinforced our public health facilities. We now have increased opportunity for investigation and research by those who are qualified to apply scientific knowledge intelligently and profitably, all of which justifies expenditure of funds for sanitation in its various phases.

Opportunity is present for health protection by sanitation because of a great stimulated interest in home environment. The value of this to those engaged in disease prevention cannot be overestimated. As interest in national economics and the well-being of the population grows, we should not relent in keeping the problem of disease prevention before those interested in national economics. We must be convinced ourselves that general improvement of the home environment necessarily is an important factor in reducing disease. Social and economic betterment is truly one of our greatest assets, for when we analyze the local standards of living we find the greater prevalence of various diseases where the standard of living is the lowest. It may be of interest to refer to a survey of our State made in 1934 which indicates the low standard of living in rural communities. This survey showed that of all the farm homes 16 per cent had no toilets whatsoever; only 1 per cent had bath tubs and bathroom plumbing; 83 per cent had outdoor toilets, 93 per cent of which were a menace to public health; only 2 per cent had kitchen sinks; 79 per cent of the houses were unpainted, and 43 per cent had defective roofs. Unfortunately, other figures are not available but I would venture to estimate that only 1 or 2 per cent of these homes had screening to protect the occupants from malaria. However, in the five-year period since this survey, much progress has been made in rural home sanitation.

It has been appropriately stated that there is a direct relationship between poor housing and poor health and between poor housing and crime, and that the effects of poor housing can be measured directly in the general welfare. Let us add that poor housing cannot support good sanitation although we are attempting to provide the best possible under adverse circumstances. With good housing will come good water supply, good sewage disposal, and good screening. And I must add that with good housing will come good health. We are not offering the solution to the housing problem, only defining it as a factor. However, our support is with those who are seeking its solution. Those who find the solution will contribute abundantly to health.

Correlated with the problem of poor housing is the problem of poor nutrition. For if a family is not proporely housed and not properly fed, we have there a health problem. There are certain diseases which are the direct result of faulty nutrition and others which are due to it indirectly. A poorly nourished body falls easy prey to many other diseases. In one of our Southern states a recent investigation shows as follows: 71,000 farms without a cow, 73,000 without a hog, 30,000 without a chicken, 18,000 without a garden and 100,000 without an orchard. This means that thousands upon thousands of rural families do not have sufficient milk, eggs, vegetables, and fruit. If we could improve this condition, we would establish a contributing factor in health protection.

So when we analyze the problem of sickness we find that it is such a very complex social and economic problem in its cause and effect that we must broaden our perspective. We have not yet solved our problems by science exclusively. What we urgently need in our health programs is a social readjustment. We need a new social order which will enable a community to rise above its circumstances. We need to give our rural populations a taste of better rural environment in order that they may become public health conscious. A real desire for an unaccustomed environment must be created. When this has been accomplished we will cease to have a population which will tolerate certain diseases accompanied by ignorance, misery and economic losses.

It is quite evident that this social readjustment is now dawning over our country. We are now entering a new era and our whole social fabric is rapidly undergoing a change. We must take

advantage of our opportunities to permit its application for improvement of the public health. If we are indifferent to this opportunity then perhaps we are not appreciative of the fact that the protection of public health through governmental agencies is going to expand and become more powerful. Whether or not we feel inclined to seek what these agencies have to offer is not the issue. The question is, will we by indifference deprive the public of the privilege of this health protection without additional cost. Such indifference would be most inconsistent when we the people value health above all else. We know that if we do not divert these governmental expenditures into channels of health protection, some other cause less worthy will receive it. Then it behooves us to accept this opportunity.

Georgia may not be an exception in this respect, but we are attempting to take advantage of all opportunities offered by governmental agencies for sanitation and public health. I will attempt to give a brief outline of some of these agencies, their objective and how health protective measures have been incorporated into the routine of State Health Department operations. It is our purpose to outline and describe a few of these agencies which have afforded us greater opportunities for expansion of our health program and have aided us in improving sanitation throughout the State.

The National Youth Administration. NYA boys have been assigned to public health engineers to assist in drainage and building screens for county distribution. They are working in shops building sanitary privies to be installed in the counties. They are assisting in school water supplies, sewerage, and school sanitation.

The Farm Security Administration makes loans to competent farm tenants, share-croppers, and farm laborers to enable them to become farm owners. Sanitation activities include improved water supplies, sanitary privies, and screening of houses particularly in malaria sections.

The Federal Housing Administration. No loan will be approved unless standard plans and specifications of the State Health Department are applied to water supplies and sewerage. The importance of screening for malaria prevention is stressed.

The Soil Conservation Service propagates the use of soil conservation practices. It conducts soil conservation demonstrations throughout the State. Soil erosion has a direct influence upon malaria. This is due to soil waste filling up streams creating overflow areas and producing malaria mosquitoes. There are in our State eight conservation districts comprising over 9,000,000 acres. On each local membership of these local district committees is a health department engineer in order to coordinate malaria control with soil conservation.

The Civilian Conservation Commission. State Health Department advice is sought relative to selection of these camp sites so that malaria will not endanger the camp population. Plans and specifications for the camp water and sewerage are approved by the State Health Department. One of these C. C. C. Camps has assumed responsibility for anopheline mosquito control on an impounded area.

The United States Housing Authority assists the State and its political subdivisions to remedy the unsafe and unsanitary housing conditions and the acute shortage of decent, safe and sanitary dwellings for families of low income and to alleviate unemployment. This has more recently been extended into a program of rural rehousing by the State depending upon national appropriations. On urban slum clearance, the State Health Department has obtained cooperation in disease control by standards adopted for water supplies, sewerage, rat-proofing, and screening for malaria control.

The Public Works Administration has for its chief aim reduction of unemployment through loans and grants to the State and its political subdivisions. When such loans and grants apply to sanitary construction such as water and sewerage, plans and specifications must be approved by the State Health Department.

The Works Progress Administration was designed to provide relief and work relief and to increase employment by providing for useful public works projects. This administration allots annually money to the U. S. Public Health Service for a program designated as Community Sanitation and Malaria Control which is coordinated with the State Health Department sanitation and malaria program. This program applies to construction of sanitary privies and malaria drainage.

Let us make this clear. We believe a well planned and effective health program must include many factors other than the professional sciences practiced by public health workers. It must prominently include that science which treats of man's well being as a member of an organized community. It must include many non-professional factors which have not yet been given due consideration.

L. M. CLARKSON, *Director,*
Division of Public Health Engineering.

The American Medical Association will hold its Ninety-Second Annual Session in Cleveland, Ohio, June 2-6, 1941.

The Medical Association of Georgia will hold its Ninety-Second Annual Session in the Municipal Auditorium, Macon, May 13-16, 1941.

The Thirty-Seventh Annual Congress on Medical Education and Licensure was held at the Palmer House, Chicago, February 17-18, 1941.

WOMAN'S AUXILIARY : OFFICERS 1940-1941

President—Mrs. H. G. Banister, Ila.

President-elect—Mrs. Lee Howard, 625 East 44th Street, Savannah.

First Vice-President—Mrs. W. W. Chrisman, 112 Corbin Avenue, Macon.

Second Vice-President—Mrs. Fred Rawlings, Sandersville.

Third Vice-President—Mrs. D. Lloyd Wood, Dalton.

Recording Secretary—Mrs. Loren Gary, Jr., Shellman.

Treasurer—Mrs. W. Bruce Schaefer, Toccoa.

Corresponding Secretary — Mrs. L. S. Patton, Athens.

Parliamentarian—Mrs. J. E. Penland, Waycross.

Historian—Mrs. W. A. Selman, 760 Penn Ave., N. E., Atlanta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

Doctors' Day

Members of the Woman's Auxiliary to the Medical Association of Georgia will observe Doctors' Day on March 30, the occasion being one on which members of the profession, both living and dead, are honored. The observance demands some act of kindness, gift or tribute.

A Georgia woman, Mrs. C. B. Almand, of Winder, first originated Doctors' Day, and it was observed by her Auxiliary, that of Barrow County, with Mrs. Ernest R. Harris as president, in 1933. In 1934 the State Auxiliary adopted the idea and in 1935, through the efforts of Mrs. J. Bonar White, of Atlanta, then national first vice-president, the Woman's Auxiliary to the American Medical Association accepted it.

March 30 is particularly appropriate as the date on which to honor members of the medical profession as it was on that date 99 years ago that Dr. Crawford W. Long, eminent Georgia physician and surgeon, administered the first ether anesthetic at his office in Jefferson. His home, in which he had his office, has been torn down but a marker notes the spot where he first gave his great contribution to mankind.

Mrs. Forrest M. Barfield, of Atlanta, is state chairman for Doctors' Day and she will present a program to mark the day. In addition, members of the various county auxiliaries which make up the state organization will celebrate the occasion in some manner.

Fulton County

Mrs. H. B. Ritchie, of Athens, state commander of the Georgia Division of the Woman's Field Army for the Control of Cancer, gave a splendid address on cancer control at the January meeting of the Woman's Auxiliary to the Fulton County Medical Society. Mrs. Hayward Phillips, chairman of the cancer education committee of the Fulton group, introduced Mrs. Ritchie and Mrs. Olin S. Cofer, president, presided over the meeting.

Routine reports were submitted, following which a letter was read from Mrs. Richard E. Newberry, president-elect, tendering her resignation. This was accepted with deep regret and her successor will be chosen by the executive committee at a called meeting. Mrs. Stacey Howell, hospital chairman, reported 36 packages and a large box of books were taken at Christmas to the children in the white ward at Battle Hill Sanitarium. It was stated that Mrs. W. M. Dunn would present two radio programs over station WATL. Later Mrs. Phillips and the cancer education committee served a delicious luncheon to members and guests.

Chatham County

The Woman's Auxiliary to the Georgia Medical Society held its January meeting at the home of Mrs. J. H. Pinholster in Savannah. The president, Mrs. J. C. Metts, presided. The treasurer's report showed a balance on hand of $183.79. A report from the Christmas card chairman, Mrs. J. E. Porter, showed a profit of $49.79 from the sales. The membership chairman, Mrs. S. P. Sanford, reported two new members, Mrs. John Stanley and Mrs. E. J. Whelan.

The Hygeia chairman, Mrs. Ruskin King, reported 22 new subscriptions to Hygeia during the year. It was decided that the health committee and public relations committee place the pamphlet, "Priceless Heritage" in beauty parlors and other suitable public places. The president announced the nominating committee, Mrs. Ralston Lattimore, Mrs. Hugo Johnson, Mrs. G. H. Lang, Mrs. J. H. Pinholster and Mrs. L. W. Williams.

As the feature of the program, W. W. McCune, assistant school superintendent, gave an interesting illustrated talk on "Our Health Program." After a report by Mrs. L. W. Williams on the recent convention of the Woman's Auxiliary to the Southern Medical Association, held in Louisville, the meeting adjourned. Refreshments were served by the hostesses. Mrs. Pinholster, Mrs. W. E. Brown, Mrs. R. L. Neville, Mrs. E. N. Maner and Mrs. E. N. Gleaton.

Baldwin County

The Woman's Auxiliary to the Baldwin County Medical Society held its January meeting at the home of Mrs. C. B. Fulghum with Mrs. O. C. Woods and Mrs. H. R. Cary, co-hostesses. Dr. J. R. Litton gave an excellent talk on various phases of public health work and the progress achieved in the past year. Mrs. Sam Anderson reported on the semi-annual meeting of the Woman's Auxiliary to the Sixth District Medical

Society, held in Macon. It was announced that members will contribute books and magazines to the Baldwin Blues' reading room and Mrs. C. H. Richardson, president, requested that these be sent to Mrs. N. P. Walker.

It was announced that the Baldwin Auxiliary was given national recognition at the meeting of the American Medical Association in New York when their year book, a picture of the Mrs. James N. Brawner cup they had won and their Hygeia award were displayed on the national poster. The cup was won last year by the Baldwin group for the most outstanding activities of any Auxiliary in the state. After the business and program, the hostesses served refreshments.

RICHMOND COUNTY

The following article, written by Mrs. Everette S. Sanderson and published in the recent 50th anniversary issue of the Augusta Herald in Augusta, will be read with interest by Auxiliary members over the state.

"The Woman's Auxiliary to the Richmond County Medical Society was organized May 25, 1925, by Mrs. T. E. Oertel with an enrollment of 20 women as charter members. Mrs. Oertel was elected president; Mrs. Charles Crane, secretary, and Mrs. Hugh Page, treasurer. In 1927 the Auxiliary was re-organized by Mrs. W. W. Battey, Sr.—always a tireless worker in the organization—with 19 members. Active work was begun on lines suggested by the state organization, such as sponsoring health programs, work in the University Hospital, entertainment for the nurses, sponsoring legislative bills, and actively participating in the tuberculosis programs of Richmond County. Assistance was also given the Health Department in caring for pellagra patients. The work extended to the Medical College whenever the Auxiliary could be of service. This policy has been continued since that time with several new activities added from year to year. Since 1930, money has been contributed to the Student Loan Fund, the women giving annual card parties to raise these pledges. In 1934, the Auxiliary contributed $50 to the Medical College Continuation Fund.

"Each year the Auxiliary has arranged some form of entertainment for members of the Richmond County Medical Society on Doctors' Day, March 30. The Auxiliary has sponsored or assisted yearly in the Women's Field Army Cancer Control Campaign and in similar campaigns for the control of tuberculosis. In recent years the Auxiliary has placed Hygeia in the rural schools for use by the P.T.A. In 1939 the Auxiliary furnished a room in the pediatric ward at the University Hospital and during the past year contributed funds for the laying of a floor covering in the hallway leading to the operating room in the Wilhenford Hospital. Every four years when the Medical Association of Georgia meets in Augusta the Auxiliary arranges entertainment for the visiting auxiliaries.

"The Auxiliary has a present membership of 38. Mrs. Lucius N. Todd is the president. Past presidents are Mrs. T. E. Oertel, Mrs. W. W. Battey, Sr., Mrs. W. C. Kellogg, Mrs. V. P. Sydenstricker, Mrs. R. H. Chaney, Mrs. R. B. Crighton, Mrs. C. M. Burpee, Mrs. R. C. McGahee and Mrs. W. Eugene Matthews."

NEWS ITEMS

THE BIBB COUNTY MEDICAL SOCIETY met in Ridley Hall, Macon, February 4, 1941. Dr. J. R. B. Branch spoke on *Medical Conditions in China.* The regular meeting of the Society was held on January 21. A sound picture was shown entitled *The Experimental Production of Ovulation in the Human Subject with PMS Hormone.*

THE GEORGIA MEDICAL SOCIETY, Savannah, met on January 28. Dr. A. J. Waring read a paper entitled *Certain Anemias of Childhood and Their Treatment;* Dr. C. F. Holton reported a case, *Undescended Testicle, Treated by Combined Methods of Hormones, Vacuum and Torek Operation.*

THE SOUTH ATLANTIC ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS met at Hotel George Washington, Jacksonville, Fla., February 7-8. Dr. R. A. Barthlomew, Atlanta, was installed president. Dr. J. R. McCord, Atlanta, was a member of the Executive Committee. Georgia physicians on the program included: Dr. Richard Torpin, Augusta; Dr. J. R. McCord, Atlanta; Dr. R. A. Bartholomew, Atlanta; Dr. C. B. Upshaw, Atlanta; Dr. W. R. Holmes, Atlanta; Dr. H. F. Sharpley, Savannah; Dr. Robert B. Greenblatt, Augusta. Other Georgia physicians who are members of the Association are: Dr. Joseph Akerman, Augusta; Dr. Jas. N. Brawner, Jr., Atlanta; Dr. E. D. Colvin, Atlanta; Dr. M. O. Corbitt, Augusta; Dr. E. C. Demmond, Savannah; Dr. John B. Duncan, Atlanta; Dr. A. J. Kilpatrick, Augusta; Dr. Fred R. Minnich, Atlanta; Dr. O. R. Thompson, Macon; Dr. J. W. Thurmond, Augusta.

DR. SHELLEY C. DAVIS has been installed president of the staff of the Crawford W. Long Memorial Hospital, Atlanta; Dr. W. L. Thomason is president-elect; Dr. Calvin Weaver, vice-president; and Dr. Joe H. Boland, secretary.

THE SOUTH GEORGIA MEDICAL SOCIETY, composed of the Counties of Berrien, Clinch, Cook, Echols, Lanier and Lowndes, were entertained at the Daniel Ashley Hotel, Valdosta, at dinner by Dr. T. H. Smith. Dr. J. F. Mixson discussed the *Treatment of Influenza.*

DR. FRANK K. BOLAND, Atlanta, was the principal speaker at the annual meeting of the Georgia Historical Society in Atlanta on February 12, and was re-elected president.

DR. W. H. SEBRELL, U. S. Public Health Service, Washington, was the principal speaker at a joint meeting

of the Richmond County Medical Society and the Dugas Journal Club of the University of Georgia School of Medicine, Augusta, January 27. Dr. Sebrell and Dr. V. P. Sydenstricker, Augusta, have received national recognition for their work with riboflavin in the treatment of vitamin deficiency diseases.

Dr. Horace Darden, of this city (Sparta) who is the oldest living graduate of the University of Georgia School of Medicine, Augusta, celebrated his 83rd birthday last Friday (Jan. 17, 1941). Dr. Darden is yet hale and hearty and able to take care of his practice. The *Ishmaelite* joins hosts of friends in congratulations and best wishes.—Sparta, Ga., *Ishmaelite*, Jan. 23, 1941.

Dr. W. E. Thomasson has been elected city physician for Carrollton.

Dr. H. H. McGee and Dr. C. F. Holton, both of Savannah, were the principal speakers at the annual banquet of the Association of Medical Assistants held at Hotel Savannah, January 22.

The Augusta Kiwanis Club was host to the following Augusta physicians at its meeting on January 13: Doctors G. Lombard Kelly, Robert A. Woodbury, Robert Greenblatt, A. P. Briggs, R. F. Slaughter, Edgar R. Pund, E. S. Sanderson, Robert Dienst, Richard Torpin, Perry P. Volpitto, L. N. Todd, J. Z. McDaniel and V. P. Sydenstricker.

Dr. J. H. Butler was re-elected president of the (Augusta) Physicians and Dentists Bureau, Inc.; Dr. S. J. Lewis, vice president; Dr. L. P. Holmes, secretary-treasurer.

Dr. H. W. Long has been appointed to the staff of the Baldwin Memorial Hospital and Binion Clinic, Milledgeville.

Dr. Warren A. Coleman, Eastman, has been appointed Lieutenant Colonel on the staff of Governor Eugene Talmadge.

The Tenth District Medical Society met at the Georgian Hotel, Athens, February 12. Dr. John A. Simpson, Athens, read a paper entitled *Influenzal Meningitis;* Dr. D. R. Thomas, Augusta, *Manifestations of Allergy as Seen by the General Practitioner,* discussed by Dr. Hal M. Davison, Atlanta; Dr. D. N. Thompson, Elberton, *Surgical Judgment of the Acute Abdomen;* Dr. Sam M. Talmadge, Athens, *Use of the Double Lumen Tube in Small Intestinal Obstruction.* Picture was shown, *Gonadotropic Hormone from Pregnant Mare Serum.*

Dr. Richard Binion, Milledgeville, announces his retirement from active practice and as chief surgeon of the Baldwin Memorial Hospital. Dr. O. C. Woods has been appointed chief surgeon and director of surgical service; Dr. Chas. B. Fulghum, chief and director of medical service; Dr. Harold W. Long, senior surgeon and assistant surgical director.

Dr. Thomas J. Charlton has been elected superintendent of the Georgia Infirmary, Savannah.

Dr. Geo. W. Fuller, Atlanta, has been elected president of the staff of the Georgia Baptist Hospital. Dr. Hal M. Davison, first vice president; Dr. Henry W. Minor, second vice president; Dr. Marion C. Pruitt, secretary.

Dr. Frank K. Boland was elected chairman of the Atlanta Chapter of the American Red Cross at its annual meeting January 28.

The visiting staff meeting of Grady Hospital, Atlanta, was held on February 11. Dr. J. A. Henry reported a case, *Interstitial Pregnancy,* discussed by Dr. Walter Holmes; Dr. C. W. Smith reported a case, *Pregnancy with Heart Disease,* discussed by Dr. O. H. Matthews and Dr. J. C. Massee.

The visiting staff of Grady Hospital, Atlanta, met on January 14. Dr. W. R. Baker reported a case, *Compound Fractures,* discussed by Dr. H. W. Jernigan; Dr. Eleanor Townsend reported, *Interesting and Unusual Clinical Laboratory Cases.* Dr. Ben Hill Clifton is president of the staff, and Dr. L. Minor Blackford, chairman of the Program Committee.

The monthly meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on February 13. Dr. W. W. Daniel reported a *Case of Extensive Burns, with Discussion and Treatment.* Dr. Joe H. Boland is secretary of the staff.

The Georgia Medical Society, Savannah, held its Annual President's Banquet on February 11th at Hotel Savannah.

The Muscogee County Medical Society met at the Ralston Hotel, Columbus, January 28. Dr. Robert B. Greenblatt, Augusta, spoke on *The Use and Abuse of Endocrines;* Dr. Edwin Watson, State Department of Public Health, spoke on *Georgia's Program of Maternal and Child Welfare.*

Dr. W. B. Buckner, Albany, is taking a special course in the diagnosis and treatment of venereal diseases at the University of Georgia School of Medicine, Augusta.

The Surgical Association of the Atlanta and West Point R. R. Company, The Western Railway of Alabama and the Georgia R. R. will hold their twenty-first annual meeting at the Biltmore Hotel, Atlanta, March 20. Dr. W. W. Young, Atlanta, will speak on *Importance of the Personality Aspect of the Railroad Employees;* Dr. Floyd W. McRae, Atlanta, *Significance of Acute Abdominal Pains;* Dr. Gordon B. Myers, Detroit, Mich., *Clinical Experience with Sulfathiazole;* Dr. J. R. Garner, chief surgeon, will conduct a *Round Table Discussion;* Dr. Hugh M. Lokey, Atlanta, President's Address—*Eye Symptoms Associated with General Diseases;* courtesy of the Missouri Pacific Lines, sound moving picture—*Mexico, Land of Enchantment;* courtesy of the Union Pacific Railroad, sound moving picture—*Summer at Sun Valley.* Officers of the Association are: Dr. J. R. Garner, Atlanta, chief surgeon; Dr. John P. Garner, Atlanta, assistant chief surgeon; Dr. Hugh M. Lokey, Atlanta,

president; Dr. J. L. Porter, Rutledge, vice president. Executive Board: Dr. J. R. Garner, Atlanta, chairman; Dr. Montague L. Boyd, Dr. Carter Smith, Dr. John P. Garner, Dr. J. Calvin Sandison, Dr. Ed H. Greene and Dr. R. H. Fike, all of Atlanta.

THE BIBB COUNTY MEDICAL SOCIETY met at Ridley Hall, Macon, February 18. A moving picture was shown, *Traumatic Surgery of the Extremities.*

THE FULTON COUNTY MEDICAL SOCIETY met in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, February 20. Dr. F. Kells Boland, Jr., and Dr. W. A. Selman reported a case, *Pancreatic Cyst;* Dr. John Funke read a paper entitled *Blood Plasma and Its Usefulness.*

THE WALTON COUNTY HOSPITAL, Monroe, held its annual public meeting and elected officers and trustees on January 27. The hospital staff consists of Dr. T. R. Aycock, Dr. E. S. Deaver, Dr. Lynn Huie, Dr. J. A. Pirkle and Dr. Phil R. Stewart, all of Monroe; Dr. W. D. Spearman and Dr. H. L. Upshaw, both of Social Circle; Dr. Chas. S. Floyd, Loganville; Dr. John Gerdine, Jersey; Dr. W. M. Fambrough, Bostwick.

DR. B. H. MINCHEW, Atlanta, spoke before a meeting of the Woman's Auxiliary to the Ware County Medical Society, February 6.

DR. EARL FLOYD, Atlanta, spoke on *Kidney Operations* before a meeting of the Southeastern Section of the American Urological Association at Jacksonville, February 21.

COUNTIES REPORTING FOR 1941

Richmond County Medical Society

The Richmond County Medical Society announces the following officers for 1941:

President—S. J. Lewis, Augusta
Vice President—E. R. May, Lincolnton
Secretary-Treasurer—H. P. Harrell, Augusta
Delegate—J. H. Sherman, Augusta
Delegate—R. C. McGahee, Augusta

Haralson County Medical Society

The Haralson County Medical Society announces the following officers for 1941:

President—E. F. Sanford, Buchanan
Vice President—C. W. Downey, Tallapoosa
Secretary-Treasurer—C. H. Allen, Bremen
Delegate—O. D. King, Bremen

Mitchell County Medical Society

The Mitchell County Medical Society announces the following officers for 1941:

President—C. A. Stevenson, Camilla
Vice President—M. M. Burns, Pelham
Secretary-Treasurer—C. L. Roles, Camilla
Delegate—J. C. Brim, Pelham
Alternate Delegate—J. W. Mobley, Pelham

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for 1941:

President—Q. A. Mulkey, Millen
Vice President—I. S. Giddens, Millen
Secretary-Treasurer—J. J. Folk, Millen
Delegate—A. P. Mulkey, Millen
Alternate Delegate—C. Thompson, Millen.

Baldwin County Medical Society

The Baldwin County Medical Society announces the following officers for 1941:

President—Chas. B. Fulghum, Milledgeville
Vice President—W. A. Bostick, Hardwick
Secretary-Treasurer—C. L. Howard, Milledgeville
Delegate—T. C. Clodfelter, Milledgeville
Alternate Delegate—Y. H. Yarbrough, Milledgeville

Clarke County Medical Society

The Clarke County Medical Society announces the following officers for 1941:

President—Lewis S. Patton, Athens
Vice President—Marion A. Hubert, Athens
Secretary-Treasurer—Loree Florence, Athens
Delegate—W. D. Gholston, Danielsville
Alternate Delegate—Sam Talmadge, Athens

Butts County Medical Society

The Butts County Medical Society announces the following officers for 1941:

President—B. F. Akin, Jackson
Secretary-Treasurer—R. L. Hammond, Jackson
Delegate—B. F. Akin, Jackson

Tri County Medical Society
(Calhoun, Early, Miller)

The Tri County Medical Society announces the following officers for 1941:

President—C. K. Sharp, Arlington
Vice President—S. P. Holland, Blakely
Secretary-Treasurer—W. C. Baxley, Blakely
Delegate—W. H. Wall, Blakely
Alternate Delegate—C. K. Sharp, Arlington

Spalding County Medical Society

The Spalding County Medical Society announces the following officers for 1941:

President—M. M. Head, Zebulon
Vice President—W. C. Miles, Griffin
Secretary-Treasurer—J. T. Leslie, Griffin
Delegate—T. I. Hawkins, Griffin
Alternate Delegate—T. J. Floyd, Jr., Griffin

Thomas County Medical Society

The Thomas County Medical Society announces the following officers for 1941:

President—Chas. H. Watt, Thomasville
Vice President—J. N. Isler, Meigs
Secretary-Treasurer—Herbert F. Readling, Thomasville

Telfair County Medical Society

The Telfair County Medical Society announces the following officers for 1941:

President—Jno. T. Persall, Jr., McRae
Vice President—S. T. Parkerson, McRae
Secretary-Treasurer—Foster P. Harhin, Lumber City
Delegate—S. T. Parkerson, McRae
Alternate Delegate—W. H. Born, McRae

Morgan County Medical Society

The Morgan County Medical Society announces the following officers for 1941:

President—J. L. Porter, Rutledge
Vice President—D. M. Carter, Madison
Secretary-Treasurer—W. C. McGeary, Madison
Delegate—W. C. McGeary, Madison
Alternate Delegate—W. M. Fambrough, Bostwick

Monroe County Medical Society

The Monroe County Medical Society announces the following officers for 1941:

President—W. J. Smith, Juliette
Secretary-Treasurer—G. H. Alexander, Forsyth

Wilkes County Medical Society

The Wilkes County Medical Society announces the following officers for 1941:

President—A. W. Simpson, Jr., Washington
Vice President—L. R. Casteel, Washington
Secretary-Treasurer—R. G. Stephens, Washington
Delegate—H. L. Cheves, Union Point
Alternate Delegate—H. T. Harriss, Washington

Henry County Medical Society

The Henry County Medical Society announces the following officers for 1941:

President—H. C. Ellis, McDonough
Vice President—R. L. Crawford, Locust Grove
Secretary-Treasurer—E. G. Colvin, Locust Grove
Delegate—R. V. Brandon, McDonough

OBITUARY

Dr. Hugo Robinson, Albany; member; University of Louisville School of Medicine, Louisville, Ky., 1890; aged 86; died on January 8, 1941 at his home after a long illness. He was a native of Neustadt, Germany. When he was a year old his parents moved to Savannah and resided there during his early youth and there he attended the Savannah puhlic schools. The family moved to Jacksonville when he was 13 years of age where he continued in school for a time and obtained his first job there as a messenger boy, then secured a position in the office of a civil engineer. Later he studied pharmacy and was licensed at Marianna, Fla. Dr. Robinson married Miss Louise Cox, of Chicago, and worked there as a drug clerk for a number of years, then opened a drug store for himself, after he disposed of his store he began the study of medicine. He was commissioner of health for Dougherty County for many years until he retired in 1937. Dr. Robinson was prominent and took an active interest in fraternal organizations, especially the Masons. He was a member of the Dougherty County Medical Society and the American Medical Association. Funeral services were conducted at the home of his daughter by Dr. E. A. Landau. Interment was in Oakview cemetery.

Dr. Walter H. Lott, Monroe; member; Atlanta College of Physicians and Surgeons, Atlanta, 1906; aged 60; died on January 9, 1941, at the home of his son in Columbia, S. C. He was born at Hoschton. After he graduated in medicine, he began practice at Jersey and after a number of years moved to Buford, where he practiced for a short time; then moved to Monroe where he built an extensive practice while associated with Dr. T. R. Aycock. Dr. Lott was widely known and held in high esteem by hundreds of friends. He was a loyal member and secretary of the Walton County Medical Society for many years, member of the American Medical Association and the First Methodist Church of Monroe. Surviving him are one son, Howell Lott, Columbia, S. C.; one daughter, Mrs. Celia Lott Warren, Augusta. Rev. Chas. M. Lipham officiated at the funeral services conducted at the First Methodist Church. Burial was in the Jersey cemetery.

Dr. Henry Turner Edmondson, Moultrie; member; College of Physicians and Surgeons, Baltimore, Md., 1911; aged 53; died on January 18, 1941, at a private hospital in Moultrie. He was a native of Quitman. Dr. Edmondson enlisted in the World War and served as first lieutenant in the medical corps. He practiced for a while in Berlin after the armistice was signed. People in Colquitt and adjoining counties not only looked upon Dr. Edmondson as an eminent physician but as a warm personal friend as well. He was a member of the Colquitt County Medical Society, American College of Surgeons, American Medical Association, Masons and Shrine. Surviving him are his widow, one son, Turner Edmondson, Jr., and one daughter, Miss Mary Betty Edmondson. Rev. J. P. Dell officiated with the assistance of Dr. R. C. Gresham and Rector Jack Bentley. Burial was in Westview cemetery.

Dr. Selmer Dean Gausemel, Atlanta; member; University of Minnesota Medical School, Minneapolis, Minn., 1918; aged 49; died at his home on January 18, 1941, after an illness of several months' duration. He was a native of Kenyon, Minn. During the World War he was a member of the Mayo Clinic unit and assigned to the Base Hospital at Fort McPherson. He was a member of the staffs of St. Joseph's Infirmary, Georgia Baptist Hospital and Grady Hospital; also was a member of the Fulton County Medical Society, American Medical Association, F. & A. M., Shrine, and All Saints Episcopal Church. Surviving him are his widow, his mother, Mrs. P. A. Gausemel, Kenyon, Minn.; three sisters, Mrs. W. H. Ashton, St. Paul, Minn.; Mrs. W. C. Goebel, Fargo, N. D.; Mrs. L. R. Pirsch, Olivia, Minn. Rev. John Moore Walker officiated at the funeral services conducted at Spring Hill Chapel. Burial was in Macon cemetery.

Dr. Tarpley William West, Shannon; University of Nashville Medical Department, Nashville, Tenn., 1903; aged 71; died on January 24, 1941, at his home. He was a native of Fannin County and received his early education at Ball Ground and at Young Harris College. Dr. West began practice at Ball Ground, was one time member of the Cherokee County Board of Education and county physician for a number of years. After he moved to Shannon he served as physician for the Southern Brighton Mills, was past master of his Masonic Lodge, and a member of the Methodist Church. Surviving him are his widow, one daughter, Mrs. C. W. Groover, Ball Ground; and one son, A. Frank West, Rome. Funeral services were conducted at the First Methodist Church of Ball Ground.

Dr. James A. Otwell, Cumming; Atlanta College of Physicians and Surgeons, Atlanta, 1906; aged 58; died at his home on January 24, 1941, of heart disease. He had been sick for about eight years. Dr. Otwell held a number of important positions and was chairman of the Cumming Board of Education for sixteen years. He was a member of the Masons, Odd Fellows, Woodmen of the World, K. of P., Cumming Kiwanis Club, member and deacon of the Baptist Church. Surviving him are his widow, one daughter, Mrs. Jack Powell, Jr., Cartersville; one son, Jas. A. Otwell, Jr., Cumming. Funeral services were conducted at the Cumming Baptist Church. Burial was in Gainesville cemetery.

Dr. William A. Palmour, Gainesville; member; Emory University School of Medicine, Emory University, 1886; aged 75; died on February 1, 1941, after a long illness in a private hospital in Gainesville. He was a native of Dawson county. Dr. Palmour took post-graduate study at the New York Polyclinic Medical School and Hospital. He was a member of the Hall County Medical Society, F. & A. M., and the First Baptist Church. He served on the City Council of Gainesville, also as mayor. While practicing for more than a half century, he was most liberal and considerate of the unfortunate who were sick. Surviving him are three daughters, Mrs. Gladys Swingle and Miss Margaret Palmour, both of Gainesville; and Mrs. W. W. Bibb; two sons, W. A. Palmour, Jr., of St. Louis, Mo., and T. M. Palmour, Gainesville. Dr. R. B. Jones officiated at the funeral services conducted at the residence. Burial was in Alta Vista cemetery, Gainesville.

Dr. Obie Byron Walker, Bowman; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1893; aged 67; died on February 5, 1941, after an illness of five years' duration. He was a prominent and successful practitioner. His standing was demonstrated by the fact that he was a member of the State Board of Medical Examiners for 27 years. Surviving him are his widow, four children, Lloyd Walker, Bowman; Sam Walker, Wrens; Onnie and A. P. Walker, Chicago.

DR. CHARLES E. BOYNTON, JR.

Whereas, On September 25, 1940, Dr. Charles E. Boynton, Jr., one of our fellow members in the Fulton County Medical Society, departed this life. He died at the home of his father, Dr. Charles E. Boynton, who was one of the South's first specialists in pediatrics.

Dr. Boynton was born Oct. 8, 1900. As a child he attended Atlanta Public Schools; following his graduation from high school he entered Princeton University and graduated in the class of 1923. He received his medical training in Emory University Medical School from which he graduated in 1931.

Following his internship at Grady Hospital he went to West Palm Beach, Fla., where he practiced several years. It was during this time that Dr. Boynton became especially interested in malaria. Subsequent to this he spent a great deal of his time studying this disease. He returned to Atlanta several years ago to become associated with his father in the practice of pediatrics.

Dr. Boynton was industrious and worked hard. He possessed an investigative mind and spent many hours in his laboratory with his microscope and camera. He was kind and of good temperament and had many friends both in and out of the medical profession.

He was married to Miss Evelyn Thompson of West Palm Beach, Fla. To this couple two sons were born, Charles Boynton, IV and Erle Thompson Boynton. His wife and sons survive him. Dr. Boynton was a member of the Trinity Methodist Church, the Pi Kappa Phi Fraternity and the Phi Rho Sigma Medical Fraternity.

His passing was sad, especially so because his mother to whom he was earnestly devoted preceded him in death only three days. On the other hand it is consoling in the fact that he lived a good life, was at all times devoted to his parents and was a good husband and father. The Medical Society has sustained a distinct loss in this member who has been called away in the prime of life.

Therefore, be it resolved that a copy of these resolutions be sent to Dr. Boynton's family and a copy placed in the records of this Society.

Respectfully submitted:
J. HARRY LANGE, M.D.
WM. PERRIN NICOLSON, JR., M.D.
J. F. HACKNEY, M.D.

Nov. 28, 1940.

NATIONAL SURVEY OF REGISTERED NURSES FOR NATIONAL DEFENSE

(Continued from page 68)

Obligations Involved for R.N.'s

The filling in of this schedule does not obligate R.N.'s to participate in military activities without their full approval. Your cooperation will fill a great national nursing need, as it will give in the event of war a record of all registered nurses.

Today nearly every woman is asking what she can do for her country. There is no more fortunate woman than the registered nurse, for she has the background of training and experience which enables her to render a service that in an emergency will be one of the first in demand.

R.N.'s, please recognize as your duty that you should

1. fill in the schedule;
2. answer all questions fully and correctly;
3. return the complete questionnaire *immediately*—do not hold the questionnaire over 24 hours. (An addressed franked envelope is enclosed for this purpose).

Married or inactive nurses wanted: Even though you have not annually renewed your Georgia registration or are not actively engaged in nursing, *answer the questionnaire*, "yes" or "no" to complete our records.

Show your gratitude for the opportunity to do your part in helping to complete the National Survey by complying promptly with the request made, so that nurses may be one of the first

groups to say: "*We, the registered nurses of the United States, are ready for the emergency.*"

Durice Dickerson, R.N.,
Special Agent of the U. S. Public Health Service of the Georgia State Nurses' Association, Representative for the National Survey of Registered Nurses.
131 Forrest Ave., N. E., Atlanta, Ga.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The growth of the New Orleans Graduate Medical Assembly has been truly spectacular. Starting in a small way four years ago it has increased its attendance by leaps and bounds and it has apparently appealed to a very large number of men, not only throughout the South but also from the North and Midwest. This is a very practical demonstration that the medical man is anxious and eager to keep up with the advances in medicine and to review the latest and most outstanding features in his professional field.

The meeting which will be held March 3-7, 1941, should be the largest one that has ever been conducted. This is said advisedly because the list of guest speakers is outstanding and the character of the presentations that these speakers will make is guaranteed by their professional reputation. It would be impossible to enumerate here the names of the eighteen outstanding essayists. Men like Paul D. White, Paul A. O'Leary, Owen H. Wangensteen, Ernest E. Irons, Maurice C. Pincoffs, Charles F. McKhann and Cecil S. O'Brien are known not only locally but nationally. Only a few of the guest speakers have been mentioned but the others are equally well known and prominent in medical circles.

The thinking medical man will realize and appreciate that this medical assembly will give him an excellent opportunity to find out about the advances in medicine and surgery; it will give the hard working professional man an opportunity to relax from the daily grind and it will give the doctor whose contact with other members of his profession is limited an opportunity of talking over his problems with his fellow practitioner and with men who are known as teachers and scientists.

The registration fee of $10.00 includes not only the lectures, and clinics in the hospitals of New Orleans on March 7, but also the roundtable luncheons, the smoker, the exhibits and many other features.

To the Members of the American Academy of Pediatrics, the Georgia Pediatric Society, and the Georgia Medical Society:

The Regional 11 meeting of the American Academy of Pediatrics will be held at Richmond, Virginia, April the 24 and 25. The final program will be announced later, but the committee promises two very profitable days. It is the policy of the Academy to extend an invitation to all members of the medical profession to attend the scientific sessions.

Please note this date on your calendar and attend, if possible.

W. L. Funkhouser, M.D.
State Chairman, Atlanta.

DR. MORTON NOT TO APPEAR IN THE MOVIES

Several months ago various organizations, doctors and laymen in the South were worried over the news that a moving picture was to be put on soon in which Dr. W. G. T. Morton, the Boston dentist, was to be portrayed as the discoverer of ether anesthesia. The Crawford W. Long Memorial Association recently has received assurance that this movie will not be produced. The studio planning the picture received so many letters and telegrams from doctors, lay-civic organizations, government officials, and Daughters of the Confederacy, protesting against the production that it has been abandoned.

Frank K. Boland, M.D.

1941 JOHN PHILLIPS MEMORIAL AWARD

On the recommendation of the Committee on Fellowships and Awards, the Board of Regents of the American College of Physicians, by unanimous resolution, has voted that the John Phillips Memorial Medal for 1941 be awarded to Dr. William Christopher Stadie, Associate Professor of Research Medicine at the University of Pennsylvania, Philadelphia, for his significant contributions to the knowledge of anoxia, cyanosis and the physical chemistry of hemoglobin, and more especially for his recent studies on the subject of fat metabolism in diabetes mellitus.

This Award was established by the College October 27, 1929, to be given periodically for some outstanding piece of work in Internal Medicine. Internal Medicine in this instance is interpreted to include not only clinical science, but all of those subjects which have a direct bearing upon the advancement of clinical science. The work must have been done in whole or in part in the United States or in Canada.

Nominations for the Award are made to the Committee on Fellowships and Awards of the American College of Physicians. The recipient must file with the College a written account of his work, and to present his results as a paper before the next annual session, at which time the award of a bronze medal is made by the president of the college.

CHEMOTHERAPY IN GONORRHEA

The newer sulfonamides, sulfapyridine and sulfathiazole, are rapidly revolutionizing the treatment of all forms of gonococcic infections. This exact modus operandi is not clearly understood but is assumed to depend on an ill-defined, inherent action as an antiseptic. The cure rates of both drugs, used in the male, are about the same for both early and late cases, and apparently reach 70 per cent or over (Bull. New York Acad. Med., 17: 39 and 64, 1941). Because of its lower toxicity, sulfathiazole appears to be rapidly supplanting sulfapyridine in clinical usage. The sulfonamides are marketed by Eli Lilly and Company in a wide variety of dosage forms.

NURSING COUNCIL ON NATIONAL DEFENSE

The Georgia State Nurses' Association has forwarded notices to presidents and superintendents of hospitals in Georgia, registries, public health agencies, special groups and to all registered nurses in Georgia as follows:

The Nursing Council on National Defense, under the auspices of the United States Public Health Service and the National Nursing Organizations, is making a survey and census of all registered nurses in the United States and its dependencies.

This is being done to ascertain the number of registered nurses available for voluntary military and civilian service.

A questionnaire has been mailed to nurses whose names and addresses are known to us.

If you are a graduate registered nurse in this state or elsewhere, and have failed to receive a questionnaire, or if you know of any registered nurse who has not received one, will you please communicate at once with Durice Dickerson, R.N., 131 Forrest Ave., N. E., Atlanta, Ga.

METANDREN BY MOUTH GIVES TESTICULAR HORMONE EFFECTS

New Ciba Synthetic Developed for Treating Men and Women

Metandren, a new preparation recently introduced by Ciba Pharmaceutical Products, Inc., marks another milestone of progress in male sex hormone therapy. Metandren has been shown to be the most effective androgen when administered by mouth, in both animals and humans. This is decidedly valuable and convenient when the doctor deems it inadvisable to inject testosterone propionate. Metandren is especially suggested for maintenance therapy and for use by the patient who is traveling.

Metandren, Ciba's name for 17-methyltestosterone, is a synthetic crystalline, chemically-pure compound. Although its superiority by the oral method has not yet been fully explained, Metandren is undoubtedly a full-fledged androgenic substance. Fifteen mg. of Metandren given daily in divided doses for one week is about equal in effect to three 10 mg. doses of testosterone propionate injected intramuscularly in one week.

Many Clinical Possibilities

The indications for Metandren in the male in probably most conditions is where a deficiency of the testicular hormone exists. Dosage depends upon the usual factors such as degree of deficiency, age, condition, etc. Treating one eunuch and two cases of hypogonadism, one investigator found that methyltestosterone "has not only a sexual, but a general metabolic effect similar in all respects to that produced by injections of moderate doses of testosterone propionate." Subsequent observations have confirmed these results.

Other male deficiency states in which Metandren should prove of value include idiopathic pruritus senilis, true and pseudocryptorchidism, impotence, prostatism, sterility (the latter requiring further investigations), and the so-called male climacteric.

As various reports cite the efficacy of testosterone and its derivants in certain male conditions, Metandren should have a parallel action. If so, it can be expected that the new drug should make a place for itself in the treatment of certain menopausal disturbances, to inhibit postpartum lactation, in postpartum "after pains," excessive uterine bleeding, premenstrual tension, and selected cases of dysmenorrhea. Over-dosage may be controlled by vaginal smear examinations.

Those in the profession who are interested are invited to write for more detailed information giving suggested dosage, indications, bibliography and other materials. They should address Ciba Pharmaceutical Products, Inc., Lafayette Park, Summit, New Jersey.

AMERICAN MEDICAL ASSOCIATION WILL PUBLISH A NEW PERIODICAL

"War Medicine" Will Be Started in January as Part of Association's Preparedness Contribution, A. M. A. Journal Says

"Beginning in January, the American Medical Association will publish a new periodical: '*War Medicine*,' as a part of its contribution to the preparedness program," *The Journal* of the Association announces in its Dec. 14 issue.

"The editorial board of the publication will be the Committee on Information of the Division of Medical Sciences of the National Research Council. This committee includes Dr. Morris Fishbein, Editor of *The Journal*, as chairman, and the following associate editors: Mr. J. R. Bloomfield and Drs. John F. Fulton, Richard M. Hewitt, Ira V. Hiscock, Sanford V. Larkey and Robert N. Nye. In order to have direct cooperation with the governmental services, the following representatives of the Army and Navy Medical Corps and the United States Public Health Service have been chosen to cooperate with this editorial board: Col. C. C. Hillman, Com. Charles S. Stephenson and Dr. R. R. Spencer.

"The Division of Medical Sciences of the National Research Council has developed a number of scientific committees which are actively at work preparing reports of various phases of medical service under military conditions. These official documents will be available to the new periodical for prompt publication. Already reports on chemotherapy (chemical treatment), the standardization of the treatment of pneumonia, numerous problems concerned with medicine in aviation, peripheral nerve (other than the spine and brain) injuries, wound treatment, gas gangrene and similar subjects are being made available.

"The American Medical Association, through its Committee on Medical Preparedness, is concerning itself with all the questions of personnel for preparedness and for military service. The official reports of this committee will also appear in the new periodical as well as special considerations that are given to economic and social problems of the medical profession in relationship to the emergency. Of especial importance also are the reports of official committees of the American Medical

Association, such as the Council on Medical Education and Hospitals, the Council on Industrial Health and similar groups which will also be concerned with these problems.

"Finally, much material is being developed by the Coordinating Committee on Medicine and Health of the Council on National Defense and by many other governmental agencies which are considering the national nutrition, the provision of hospital services and similar questions closely related to preparedness and defense.

"The new publication will appear as a bimonthly. The Board of Trustees of the American Medical Association, which has authorized its publication, has established a price of $5 annually for the subscription. The periodical should be useful not only to the government services, which have indicated their wish to subscribe to this periodical for their official departments, but also to libraries and to individual physicians."

NEW COLOR FILM ON VITAMIN B COMPLEX

The apparently high incidence of sub-clinical deficiency states associated with lack of the vitamin B complex and the difficulty of recognizing and diagnosing such conditions make the announcement of a new motion picture on the vitamin B complex one of special interest. The title of the new film is "The Vitamin B Complex;" it is entirely in 16 mm. Kodachrome. A *sound* as well as a *silent* version is available to medical societies and medical schools.

The film is based largely on clinical material from the Nutrition Clinic, Hillman Hospital, Birmingham, Ala. The cases selected for the most part were not so much those exhibiting the classical syndromes, but rather were of the mild type frequently involving mixed deficiency states and less endemic in character.

A brief discussion of the physiological properties of the individual and better known members of the vitamin B complex introduces the film and serves as a background for the very generous exposition of the various clinical cases that comprise the balance of the picture. Not the least interesting of the features of the film is the marked fidelity of the colors to the dermatological lesions which are reproduced.

Special emphasis is given in the film to the promptness and specificity of the therapeutic response when diagnosis has been correct. The dietary management of B complex deficiency states is outlined and harmonized with the application of the separate crystalline components of the complex.

The film, "The Vitamin B Complex," was produced under the supervision of the scientific and medical staffs of E. R. Squibb & Sons, and was reviewed before release by authorities of international repute in the field of medicine and nutrition. There is no advertising in the film which is offered solely as a conservative review of the present status of the subject. Inquiries with reference to the loan of the film may be addressed to E. R. Squibb & Sons, Professional Service Department, 745 Fifth Avenue, New York, N. Y.

EXAMINATIONS FOR APPOINTMENTS IN THE MEDICAL CORPS OF THE U. S. NAVY

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire (M. C.), U. S. N., announces the next examination for appointments as commissioned officers in the Medical Department of the Navy will be held at all of the larger naval hospitals and at the Naval Medical Center, Washington, D. C., on May 12 to 15, inclusive, 1941. Applicants for appointment as Assistant Surgeon, effective approximately two months from date of examinations, may now request authorization to appear for examination. Requests for such authorization should reach the Bureau of Medicine and Surgery, Washington, D. C., prior to April 21, 1941.

Applicants for appointment as Assistant Surgeon are required to be citizens of the United States between the ages of 21 and 31, graduates of class "A" medical schools, to have had at least one year of intern training in a hospital accredited for intern training by the Council on Medical Education and Hospitals of the American Medical Association, and to meet the physical and other requirements for appointment.

STATUS OF THE MEAD JOHNSON VITAMIN A AWARD*

Meeting in New York June 4, 1937, the judges** stated that the presentation of the Award "at this time is not warranted since no clinical investigation on vitamin A has yet been published which completely answers any of the objectives of the original proposal. The judges, therefore, agreed to defer further consideration of the granting of this award until December 31, 1939. This action was taken because of the existence of pronounced differences of opinion among investigators as to the reliability of any method yet proposed for determining the actual vitamin A requirements."

On November 19, 1940, the judges met at Memphis and stated that "considerable progress in research with vitamin A has been made, principally along two main lines of endeavor. The fields showing most promise are those involving dark adaptation and blood serum studies. The judges feel that there is still too much uncertainty about the relative merits of several investigations to warrant making the award at this time. It was, therefore, agreed that the giving of the award be postponed until clear resolution of various factors is achieved."

The sum of $15,000 called for by the Main Award, remains as a cash deposit in escrow with the Continental Illinois National Bank and Trust Company of Chicago.

*$15,000 Award for Clinical Investigation. There was also a $5,000 Award for laboratory investigation, which was awarded by the judges April 10, 1935, one-half to Dr. Karl E. Mason, Vanderbilt University and one-half to Dr. S. B. Wolbach, Harvard University. Full information will be found in the J.A.M.A., Jan. 30, 1932, May 12, 1934, April 27, 1935, Oct. 23, 1937.

**The judges are: Isaac A. Abt, Northwestern University Medical School, Chicago; K. D. Blackfan, Harvard University Medical School, Boston; Alan Brown, University of Toronto, Toronto, Canada; Horton R. Casparis, Vanderbilt University, Nashville; S. W. Clausen, University of Rochester, Rochester, N. Y.; H. F. Helmholz, Mayo Clinic, Rochester, Minn.; E. V. McCollum, Johns Hopkins University, Baltimore; L. T. Royster, University of Virginia, University, Virginia; Robert A. Strong, Tulane University, New Orleans, La.

THREE-QUARTERS OF A CENTURY FOR PARKE, DAVIS & COMPANY

The year 1941 marks the Diamond Anniversary of the founding of Parke, Davis & Company, a firm which had its inception in a small drug store in the city of Detroit, Michigan, and which, during the past seventy-five years, has become the world's largest makers of pharmaceutical and biological products.

From the very beginning, back in 1866, Parke, Davis & Company has engaged in research work with the object of making available to pharmacists and physicians medicinal preparations of the highest degree of accuracy.

In the early 70's, pharmaceutical progress meant the discovery of new vegetable drugs. Energetic—and extensive—explorations gave to the medical profession such widely used drugs as Cascara and Coca. Then, in 1879, come one of Parke-Davis' greatest contributions to pharmacy and medicine—the introduction of the first chemically standardized extract known to pharmacy. Desiccated Thyroid Gland, the first endocrine product by the Company, was introduced in 1893. One year later, Parke-Davis established the first commercial biological laboratory in the United States. In 1897 came the introduction of the first physiologically assayed and standardized extracts. And throughout these early years, the fundamental Parke-Davis policy—precision in pharmaceutical manufacture—was crystallizing.

Since the turn of the century, progress of the Company has continued apace. An aggressive program of research has been zealously pursued, marked by the introduction of such important medicinal products as Adrenalin, Ventriculin, Theelin, Pitocin, Pitressin, Mapharsen, Neo-Silvol, Antuitrin-S, Meningococcus Antitoxin, Dilantin Sodium, and many others. Diversified research activities cover the major phases of medical treatment—including the endocrine, biological, vitamin, and chemotherapeutic—and new discoveries are carefully evaluated through the Company's extensive facilities for clinical investigation.

The Company's home offices and research and manufacturing laboratories in Detroit occupy six city blocks on the Detroit riverfront, adjacent to the Detroit-Walkerville ferry, which connects the City of Detroit with the Province of Ontario, Canada.

A beautiful farm of 700 acres, known as Parkedale and located near Rochester, Michigan, about 30 miles from Detroit, is utilized for the production of antitoxins, serums and vaccines, and for the cultivation of medicinal plants.

In addition to its Detroit headquarters, branches and depots are maintained in important cities throughout the country, the list including Atlanta, Baltimore, Boston, Buffalo, Chicago, Cincinnati, Dallas, Denver, Indianapolis, Kansas City, Minneapolis, New Orleans, New York, Philadelpiha, Pittsburgh, San Francisco, St. Louis, and Seattle.

In the foreign field, to care for the Parke-Davis business which extends to every quarter of the globe, branches are located in London, England; Sydney, N. S. W.; Walkerville, Ontario; Montreal, Quebec; Toronto, Ontario; Winnipeg, Manitoba; Bombay, India; Havana, Cuba; Buenos Aires, Argentina; Rio de Janeiro, Brazil, and Mexico City, Mexico.

Through the use of full-pages in leading national magazines Parke, Davis & Company are carrying on an advertising program that has attracted wide attention. As might be expected, their advertising is unique, ethical, distinctive. They make no direct attempt to sell their products to the public by means of this publicity. In a sincere effort to render a valuable service to the medical profession, they are running a striking series of messages based on the "See Your Doctor" theme, and physicians throughout the country are constantly experiencing evidences of the results of this broad educational program

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THE "CONTINENTAL" BREAKFAST

Is Not Suitable for a Growing Child

In far too many homes, a breakfast of a roll and a cup of coffee is the fare for children as well as adults. Woefully deficient in vitamins and minerals, such a meal furnishes little more than a small amount of calories. A dish of Pablum and milk, however, is just as easily prepared as a "continental breakfast," but furnishes a variety of minerals (calcium, phosphorus, iron, and copper) and vitamins (B_1 and G) not found so abundantly in any other cereal or breadstuff. The addition of a glass of orange juice and one Mead's Capsule of Oleum Percomorphum can easily build up this simple breakfast into a nourishing meal for the children of the family as well as the adult members. It is within the physicians's province to inquire into and advise upon such nutritional problems, especially since Mead Produtcs are never advertised to the public.

SODIUM AMYTAL

The value of the sedative and hypnotic properties of "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) in surgery, obstetrics, and internal medicine is now well established.

In surgery the use of "Sodium Amytal" by mouth is preliminary medication before general anesthesia has greatly reduced the preoperative anxiety of the patient, lessened the amount of anesthetic, and diminished the unpleasant postoperative symptoms.

The medical applications of the sedative, hypnotic, and anticonvulsant properties of "Sodium Amytal" are many, as is illustrated by its employment in simple insomnia, hysteria, neurasthenia, thyroid disease, chorea, and certain of the psychoses. To these should be added its use in the treatment of nausea and vomiting, seasickness, and migraine. In addition it has proved effective in the convulsions which may occur in tetanus, rabies, status epilepticus, meningitis, and eclampsia, and as an antidote against overdosage of certain of the convulsant poisons.

WANTED TRAINED TECHNICIAN
Capable of doing laboratory and x-ray work.
Apply to President of the Marietta Hospital,
Marietta, Ga.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
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SYMPOSIUM ON OBSTETRICS

GEORGIA'S OBSTETRIC PROBLEMS FOR 1940

JAMES R. MCCORD, M.D.
Atlanta

Obstetric problems in the United States are more or less sectional. Those to be solved in Georgia are probably common to all Southern States. There are many fundamental causes of maternal mortality. Some of these are professional, others are economic, and many deaths occur because of ignorance and environment. In my opinion the easiest cause to correct is the professional. It is probably true, speaking broadly, that maternal deaths in this State can be reduced 25 per cent by the improvement of professional care alone.

Obstetricians can be divided into two groups: the conscientious, careful obstetrician, and the careless obstetrician. Both will have obstetric deaths, but one will have more than the other. No amount of training can remove the hazard of the careless and indifferent man. I have been associated with a rather large obstetric clinic for twenty-five years and fully realize the tremondous problems that constantly arise. Our results are not by any means perfect. It is a great satisfaction, however, after some tragic experience, to know that we have not been careless and that we used our knowledge in the best way we knew.

The basic principles of obstetrics are relatively few and when placed upon a foundation of sane conservatism yield almost uniform results. Frankly, it seems as if little can be done with the indiscriminate pituitrin pusher, the forceps snatcher, and the cesarean fiend. Ample evidence is easily available of the many dangers caused by careless procedures. It begins to look as if the correction must of necessity come from education on the other side of the fence. There is an obstetric axiom that should always be respected — the poorer the obstetric environment in which one is working, the greater should be the conservatism. Time loses all importance when measured with human life.

We physicians should make a greater effort to differentiate obstetric and non-obstetric deaths. Pregnant women die from causes not connected with the pregnancy. More attention given to this by county health officers and the collectors of vital statistics would probably be illuminating. Approximately 30 per cent of the pregnant women who die on our service do not die of obstetric conditions. In my opinion the reported rate of colored mothers who die in Georgia is particularly apt to be misleading. The source of the statistical material is not accurate from a diagnostic standpoint. This fact relieves us of no responsibility; but it should increase our efforts to obtain a fair evaluation of Georgia's rate.

If every colored woman in Georgia and all white women living at a subsistence level could be delivered in a hospital by an experienced obstetrician, I do not believe that, under present economic conditions, our rate would be as low as in some States. In other words, I think that the patient herself is the greatest factor in maternal mortality in the Southern States. Some education of every woman must be the final answer, and with this education must go an equal and sustained economic improvement. Maternal mortality is a complicated study and maximum improvement that is possible will not be accomplished by working at the tangents.

Read before the Medical Association of Georgia, Savannah, April 25, 1940.

I think that one should not accept responsibility for obstetrics and not follow through. Small fees should not beget careless work. Good prenatal care requires a small amount of time and, in the aggregate, but a small sum of money. It returns large dividends in life, health and satisfaction. It should provide the authoritative source of education for pregnant women. Quackery has for its keystone the ability of the particular cult to sell itself and its methods to its patients.

We doctors are often too timid, reticent and I fear, at times, neglectful. A woman recently entered an Atlanta hospital in the last month of pregnancy with congestive heart failure. She had consulted a doctor several months before. He had asked a few questions, had not examined her and had given no detailed instructions. The doctor was an old student of mine. He was not taught that sort of obstetrics.

I am a conservative, but if we are to keep the practice of medicine in the United States as it is now, there are some things we doctors must do. We must be more honestly aggressive, more of an educator of our individual patients, more cooperative with each other, and we must do the best job we can under the conditions in which we are working.

In my humble opinion there is too much individual autocracy in the practice of medicine. There is not enough give and take, not enough resiliency. In obstetrics particularly, there seem to be too many radical decisions that are based upon relatively small personal experience. Advantage is not taken of an aggregate experience.

I have never found any way to make the practice of obstetrics easy. The way is long and hard. We should not undertake the work if we are not willing to accept the responsibility to the best of our ability.

In April a series of lectures on infantile paralysis by outstanding medical authorities will be presented at Vanderbilt University, Nashville, Tenn. These lectures are sponsored by the National Foundation for Infantile Paralysis. Ernest W. Goodpasture, head of the Department of Pathology at Vanderbilt University, is supervising the arrangements. Eminent authorities from all parts of the country will give lectures which have been designed to cover the entire field of the disease.

STUDY OF MATERNAL MORTALITY AND INFANT DEATHS

COMMITTEE REPORT

H. F. SHARPLEY, JR., M.D.
Savannah

There has been an appreciable improvement in Georgia's maternal mortality since 1930. In 1930, the death rate for puerperal causes was 10.9 per thousand live births; in 1939, it was 5.5. (Chart 1).

CHART 1

Maternal Deaths with Rates per 1,000 Livebirths by Color in Georgia 1930 through 1939.

	Total	*White*	*Colored*
1930	10.9	9.7	12.8
1931	10.0	8.6	12.1
1932	9.7	8.1	12.2
1933	7.6	6.4	9.4
1934	7.8	6.8	9.2
1935	7.2	6.2	8.8
1936	8.0	6.9	9.5
1937	7.4	6.3	8.9
1938	6.5	5.0	8.7
1939	5.5	4.7	7.0

To understand the significance of these figures, let us compare Georgia's maternal mortality in two ways, by rates and by percentage decrease with another area. As for example, North Dakota which had the lowest rate of any State for 1938. (Chart 2).

CHART 2

Maternal Mortality
Georgia and North Dakota Compared.

Comparison by Rates		*States in order of rates*
North Dakota	2.4	Top of list of States.
Georgia	6.7	Fourth from the end.
Comparison by per cent Decrease		
Georgia	23%	Twelfth from the top.
North Dakota	12%	Third from the end.

In 1931, the rate of death for puerperal causes in the United States per 1,000 live births was 6.6; in 1938, 4.4. In 1931, in Georgia, 10.0; in 1938, 6.5. Note the per cent decrease in the United States, and in Georgia.

It has been known for some time that the maternal mortality rates of the Southern States have been higher than those in other areas of the United States. The mor-

Report by the Chairman of the Committee for the Study of Maternal Mortality and Infant Deaths.

tality of maternity for white mothers has been nearly one-half that amongst colored mothers. (Compare charts 3 and 4). This reason has been advanced for the difference in maternal mortality rates between the United States and other foreign countries not possessing such a diversity in population. Note the declining rates.

Chart 3
White Maternal Rates per 1,000 Livebirths.

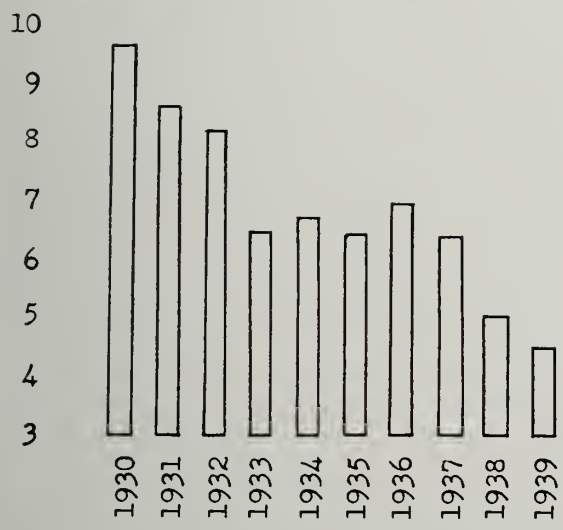
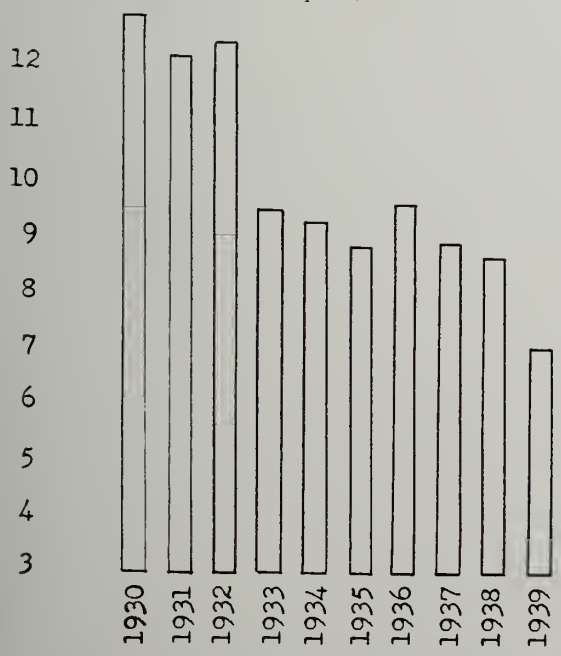


Chart 4
Colored Maternal Rates per 1,000 Livebirths.



Method of Study

Questionnaires were mailed to the attending physician or midwife. The questionnaire is of the standard recommended by the Children's Bureau which contained a copy of the certificate of the puerperal death as reported to the Georgia Bureau of Vital Statistics. This method saved much duplication of work between the Committee and the Staff of the Bureau of Vital Statistics under the direction of Dr. D. M. Wolfe. Dr. H. J. Bickerstaff and Dr. E. R. Watson of the Division of Child Hygiene aided in saving the physician's time and improving the per cent of returned questionnaires.

Answers were returned on 287 or 82 per cent of a total of 351 questionnaires.

Promptness is essential in mailing the questionnaires and the per cent of returned questionnaires varies directly with it.

Each year heretofore this Committee owed a debt of gratitude to the Bureau of Vital Statistics always ready to render efficient aid to this Committee. Under the new or improved set-up of this year. Dr. T. F. Abercrombie and the entire staff under his supervision joins with the Committee in extending thanks to the physicians of Georgia for their hearty cooperation in aiding with the survey.

Indirect Influences of the Race on Maternity Rates

Georgia's maternal mortality rate for 1939 is 5.5; a white rate of 4.5; a colored rate of 7.0.

This difference in mortality rate by race confronts us at the onset as it has from year to year. This suggests that a comparison by race be made throughout the study.

In 1930, 1931 and 1932 the colored mortality rates in Georgia per 1,000 births were above 12; today 7.0, a reduction of only a little over 5 in 8 years in the colored mortality rates. This, at first, seems small but upon making a light analysis of some of the problems such as stillbirths, (chart 5) illegitimacy, and syphilis, which more particularly affect the colored mortality rate, this apparent small decline turns into a distinct credit to the medical profession of Georgia and its agency, the Public Health Department.

The elimination of the syphilitic stillbirths (higher in colored) by more anti-

syphilitic treatment tends to lower the maternal mortality rates as the livebirth rate would approach more closely the total birth rate.

CHART 5

Stillbirths

Stillbirth Rates per 1,000 Livebirths in Georgia 1930 through 1939 by race.

	Total	*White*	*Colored*
1930	65.9	39.2	100.7
1931	59.5	37.9	93.0
1932	60.4	39.0	92.4
1933	60.9	38.7	92.5
1934	63.8	43.6	93.1
1935	63.0	41.0	94.6
1936	59.1	39.8	86.7
1937	58.8	40.2	86.1
1938	52.7	35.9	77.8
1939	49.1	33.8	72.0

Illegitimacy

Crime as reported by the Federal Bureau of Investigation in which 1,412 negroes were arrested and fingerprinted per 100,000 against 500 white reflects some of the racial differences that affect our maternal rates indirectly. Besides crime, others could be added, such as syphilis, illegitimacy, morals, education, economics and the like. It has been known that maternal mortality is many times higher with stillbirths (colored is double the white) than with livebirths. (Chart 6).

CHART 6

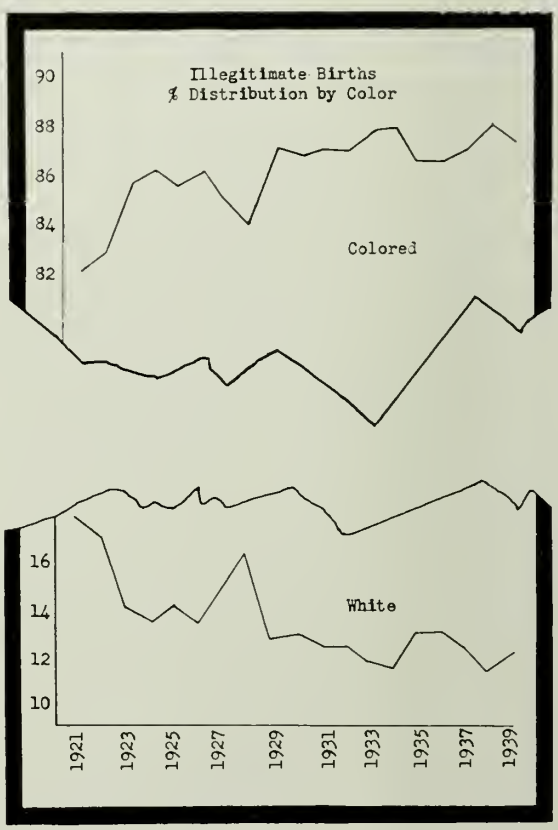
Illegitimate Births

*Per cent illegitimate stillbirths of total stillbirths.

**Per cent illegitimate livebirths of total livebirths.

The colored stillbirth rate is over double that of the white. Since illegitimacy is greater with the stillbirths let us then separate the illegitimate livebirth curve by race. (Chart 6). The colored and white curves are so separated (Chart 7) that the graph had to be broken to conserve space. Note that the white illegitimate curve is decreasing.

CHART 7



Syphilis

Attention must be drawn to the fact that the following table (Chart 8) of the number of Wassermanns is made only on the cases where there was a maternal death and a completed questionnaire was returned. It does not show the number of Wassermanns taken during pregnancy on the 64,568 livebirths and the 3,168 stillbirths that occurred during the year.

CHART 8

Wassermanns During Pregnancy.
287 Cases Maternal Deaths.

	Total	*White*	*Colored*
Number taken	93	54	39
Number not taken	194	83	111
Totals	287	137	150

Births and Mortalities

Daily, more and more interest is shown in figures on population, its shift to the old, etc. The birth rates of the United States have decreased by one-third since 1915. Georgia's birth rates since 1930 are shown below by race. (Chart 9).

Chart 9

Livebirth Rates per 1,000 Population by Color, in Georgia 1930 through 1939.

	Total	*White*	*Colored*
1930	20.7	20.1	21.7
1931	21.0	20.4	22.5
1932	21.5	20.4	23.5
1933	20.4	18.8	23.0
1934	21.5	20.1	24.0
1935	20.9	19.4	23.6
1936	20.2	18.7	22.9
1937	20.8	19.4	23.2
1938	20.7	19.5	23.0
1939	20.4	19.1	22.8

There are actually more white births than colored. In proportion to their respective populations, that is by rates, the colored exceeds the white. (Chart 10). Just the reverse is true of the stillbirths, more colored than white are stillborn. Likewise more colored infants than white die under one year of age.

Chart 10

Livebirths and Rates per 1,000 Population, Stillbirths, Deaths under one year of age and Maternal Deaths with Rates per 1,000 Livebirths by Color, in Georgia for 1939.

Subject	*Total*	*White*	*Colored*
By number:			
Livebirths	64,563	38,696	25,872
Stillbirths	3,168	1,306	1,862
Infant mortality	3,787	1,937	1,850
Maternal mortality	356	174	182
By rate:			
Livebirths	20.7	19.4	23.0
Stillbirths	49.1	33.8	72.0
Infant mortality	58.7	50.1	71.5
Maternal mortality	5.5	4.5	7.0

Counties

Both the white and colored maternal rates have been computed for each of the 159 counties. A comparison of the maternal mortality rates between counties with a few births and no maternal deaths and counties with a large number of births is awkward. A certain number of maternal deaths occurred in a county other than the county of their residence. This county was usually a county with a hospital (Chart 11) probably shifting for a difficult labor or as a last minute resort before death.

Chart 11

Maternal Deaths in Counties Other Than County of Usual Residence by Color in Georgia 1939.

	Total	*White*	*Colored*
Total number cases crossing county lines	54	34	20
Number cases crossing lines to counties with hospitals	47	32	15

Home and Hospital

There is a definite trend to the hospital and away from the home for childbirth in Georgia. (Charts 12 and 13). This trend is definitely slower in the colored race, an increase of 5 per cent in 10 years as compared to 20 per cent for the white.

Chart 12

Per Cent of Births in the Home by Color in Georgia 1930 through 1939.

	White %	*Colored %*
1930	86.2	91.4
1931	86.1	92.4
1932	85.2	90.5
1933	84.7	90.0
1934	83.2	90.5
1935	81.3	91.0
1936	77.9	90.7
1937	74.6	89.1
1938	71.3	88.6
1939	67.1	87.9

Chart 13

Per Cent of Births in the Hospital by Color in Georgia 1930 through 1939.

	White %	*Colored %*
1930	13.8	8.6
1931	13.9	7.6
1932	14.8	9.5
1933	15.3	10.0
1934	16.8	9.5
1935	18.6	9.0
1936	22.0	9.3
1937	25.3	10.9
1938	28.6	11.3
1939	32.7	12.1

Likewise stillbirths are shifting to the hospitals and away from the home with increasing frequency. (Chart 14). Far more than 50 per cent of all the births still occur at home in Georgia.

Chart 14

Per Cent of Stillbirths in the Home and Hospital by Color in Georgia 1930 through 1939.

Home:	*White %*	*Colored %*
1936	74.1	91.0

1937	71.8	87.8
1938	69.3	89.0
1939	63.4	87.0
Hospital:		
1936	25.7	9.0
1937	27.9	12.1
1938	30.5	10.9
1939	36.4	12.7

More white maternal deaths regardless of place of birth occurred in the hospital. With the colored race, more mothers died at home. (Chart 15).

CHART 15

Maternal Deaths in Home and Hospital by Color in Georgia 1939.

	Total	*White*	*Colored*
Home	196	78	118
Hospital	157	95	62

The per cent of colored maternal deaths was greater than the white per cent on free ward service. (Chart 16).

CHART 16

Hospital Deliveries or Abortions with Maternal Deaths by Fees and Color.

	Total	*White*	*Colored*
Private or Semi-private	46	37	9
Ward Pay	9	5	4
Ward Free	40	12	28
Totals	95	54	41

ATTENDANT AT DELIVERY

Since 1935 the physician's obstetric practice has increased in both races. The midwives practice in the white race has decreased. (Charts 17 and 18).

CHART 17

White Births Attended by Physician, Midwife and Other in Georgia 1935 through 1939.

	Physician	*Midwife*	*Other*
1935	31,798	5,373	174
1936	31,111	4,998	211
1937	33,412	4,615	154
1938	34,014	4,473	126
1939	34,258	4,249	189

CHART 18

Colored Births Attended by Physician, Midwife and Other in Georgia 1935 through 1939.

	Physician	*Midwife*	*Other*
1935	5,514	20,364	67
1936	5,548	19,663	86
1937	6,098	19,647	86
1938	6,097	19,497	100
1939	6,428	19,385	59

The physicians handle the bulk of the white deliveries and the midwives the bulk of the colored. There are still a number of unattended births occurring each year. (Chart 19). Thirty-seven maternal deaths occurred amongst the unattended group this year and seventeen of these were not seen by a physician before death.

CHART 19

Unattended Deliveries and Maternal Deaths by Color in Georgia 1939.

	White	*Colored*
Births	189	59
Unattended Maternal Deaths	18	19
Not Seen before Death	4	13

We have observed that when any area is organized, the number of midwives in that area immediately decreases. This is probably due to the fact that when the patients are rounded up and receive prenatal care and advice—the poorly qualified midwives see their own shortcomings and withdraw from the midwife classes and from the field of midwifery. As a whole the number of midwives throughout the State are decreasing. (Chart 20). They attend many births that would be otherwise unattended. Better distribution of fewer and better qualified midwives should decrease the maternal deaths amongst this unattended group.

CHART 20

Number of Midwives in Georgia by Year.

Year	*Number of Midwives*
1932	3,358
1933	3,562
1934	3,434
1935	3,510
1936	3,297
1937	3,171
1938	3,061
1939	2,855

PRENATAL CARE

Of the 287 maternal deaths the majority of these mothers received prenatal care after the fifth month or late prenatal care. Ninety-three sought prenatal care (if it could be called such) when labor began. (Chart 21). To indulge in a little sarcasm, medical science will have to increase the length of pregnancy from 9 months to 2 years so that this group will have sufficient time to make delivery arrangements and have their hearts checked before the birth of the placenta. Definitely this chart shows

what is still needed in health education and especially amongst the colored race.

Chart 21

Prenatal Care of the 287 Maternal Deaths.

Month	*Total*	*White*	*Colored*
1	10	10	....
2	29	19	10
3	16	7	9
4	16	10	6
5	14	6	8
6	18	8	10
7	16	8	8
8	23	13	10
9	52	24	28
Labor	93	32	61
Totals	287	137	150

Here again 28 maternal deaths occurred before the birth of the baby from eclampsia when early and adequate prenatal care will lower its incidence. (Chart 22).

Chart 22

Maternal Deaths Occurring Before Delivery 1939.

	Total	*White*	*Colored*
Abortion-Sepsis	2	....	2
Abortion-Hemorrhage	1	1	....
Septicemia	2	....	2
Nephritis and Eclampsia	28	9	19
Accidents	1	....	1
Hemorrhage	4	2	2
Vomiting of Pregnancy	1	....	1
Non-Obstetrical	3	1	2
Embolism and Sudden Death	4	4	....
Totals	46	17	29

is definitely declining — preventable with obstetric judgment and ordinary surgical cleanliness at birth, especially by substituting rectal examinations for vaginal examinations made through unprepared vulva skin.

Each year the diagnosis of eclampsia and sepsis are confused in a number of instances as noted upon comparing the death certificate with the questionnaire. There are fourteen white cases of embolism reported.

Chart 23

Maternal Deaths by Cause in Georgia 1939.

	Total		*White*		*Colored*	
	No.	*%*	*No.*	*%*	*No.*	*%*
Abortion-Sepsis	36	12.5	15	10.9	21	14.0
Abortion-Hemorrhage	7	2.4	3	2.1	4	2.6
Septicemia	54	18.8	20	14.5	34	22.6
Nephritis & Eclamp.	106	36.9	48	35.0	58	38.6
Accidents	16	5.5	9	6.5	7	4.6
Hemorrhage	30	10.4	14	10.2	16	10.6
Ectopic	8	2.7	3	2.1	5	3.3
Vomiting of Preg.	2	.6	1	.7	1	.6
Non-Obstetrical	14	4.8	10	7.2	4	2.6
Embolism	14	4.8	14	10.2	....	....
Totals	287	100	137	100	150	100

Operative Deliveries

Nine maternal deaths occurred where eclampsia was the sole indication (Chart 24) for the cesarean section, in lieu of the fact that better results have been obtained with the conservative management

Chart 24

Relation of Type of Operation to the Indication in 63 Operative Cases where Maternal Deaths Occurred.

	Cesarean		*Forceps*		*Version*		*Lap.*	
	W.	*C.*	*W.*	*C.*	*W.*	*C.*	*W.*	*C.*
Totals	17	10	14	11	2	7	2	1
Hemorrhage	....	5	3	....	....	....	....	....
Septicemia	....	....	....	1	....	....	....	....
Eclampsia	4	5	6	3	2	....	....	....
Disproportion	11	....	2	5	....	2	....	....
Malposition	....	....	3	....	....	5	....	....
Ectopic	....	....	....	....	....	....	2	1
Cervical Dystocia	1	....	....	1	....	....	....	....
Inertia	1	....	....	1	....		....	....
Stillborn Babies	3	6	6	6	2	5	0	0
	9		12		7		0	

Causes of Death

Hemorrhage plays a smaller role than either eclampsia or infection. The latter two several years ago were about equal but now we note (Chart 23) that infection of eclampsia throughout the past decade. Out of twenty-seven cesarean sections one-third of the babies were stillborn.

Operative Complications

The cesarean section leads with the ma-

jority of the complications while shock is the largest complication in the group of operative procedures. (Chart 25).

CHART 25

Type of Complication in 41 Operative Deliveries.

	Cesarean	*Forceps*	*Version*	*Lap.*
Shock	5	3	4	2
Septicemia	9	2	....	....
Cerebral Embolism	3	1	1	....
Pulmonary Embolism	1	1	....	1
Hemorrhage	1	1	....	....
Acute Dilatation Stomach	1	....	....	....
Pneumonia	1	1	....	....
Cardiac Dilatation	2	....	....	....
Acute Paralytic Ileus	....	....	1	....

We should reflect into the past to obtain a bearing for the future that will help guide us as we do our daily work under the social and economic problems of the times. The per cent decrease in our rate serves as the reflector showing the good work of the past and means that maternal care has been applied to an increasing number of women with a decrease in maternal deaths. Our rates indicate that much decrease is yet possible. The foregoing study of the causes of our present rate is presented so that the number of mortalities per year can be further reduced.

Personnel of the Committee for the Study of Maternal Mortality and Infant Deaths follow:

Sharpley, H. F., Jr., Chairman ..... Savannah
Akerman, Joseph ..... Augusta
Bivings, Lee ..... Atlanta
Brooke, Geo. C. ..... Canton
Cason, W. M. ..... Sandersville
Clark, T. H. ..... Douglas
Colvin, E. D. ..... Atlanta
Copeland, H. J. ..... Griffin
Davis, Bradley B. ..... Gainesville
Gleaton, E. N. ..... Savannah
Jarrell, W. W. ..... Thomasville
Maddox, R. C. ..... Rome
Mooney, A. J. ..... Statesboro
Park, Emory R. ..... LaGrange
Schley, F. B. ..... Columbus
Simonton, Fred H. ..... Chickamauga
Smith, Herschel A. ..... Americus
Smith, S. S. ..... Athens
Stephens, C. M. ..... Waycross
Wilkinson, W. L. ..... Bainbridge
Woods, O. C. ..... Milledgeville

Ex-Officio

T. F. Abercrombie, Director, State Department of Public Health, Atlanta.

The officers of the Association acknowledge their appreciation and thanks to the Chairman and committeemen for their excellent and worthy report.—Ed.

CONSERVATIVE TREATMENT OF ECLAMPSIA

E. CARSON DEMMOND, M.D.
Savannah

Eclampsia is the advanced stage of a toxemia occurring in the latter weeks of pregnancy characterized by convulsions and coma. Eclampsia may appear suddenly, but usually there is a preceding period of days or weeks with symptoms of headache, edema, visual disturbances, epigastric pain, increasing blood pressure, signs of faulty renal function, and eyeground changes. Eclampsia accounts for about one-fourth of deaths from puerperal causes. Maternal mortality varies considerably according to locality and type of treatment:—Stroganoff (1937) 3 per cent; McCord (1937) 6.75 per cent; Greenhill, 9 per cent; Harrer at New York Lying-In (30 year period) 23 per cent; Teel and Reid at Boston Lying-In (20 year period) 26.6 per cent; Reinberger and Schreier 42.4 per cent following cesarean section. Moore (1939) reports the mortality rate in operative deliveries as twice that where more conservative measures are followed.

The pathology of eclampsia concerns chiefly the liver, kidneys, brain, and pituitary body. The liver shows hemorrhagic and necrotic areas with thrombosis of the periportal and sometimes the portal vessels. The kidneys show glomerulonephrosis rather than inflammatory process; the capillaries are widened and distorted; glomerular loops are sometimes adherent; cellular outlines are poor and few nuclei can be seen. The brain shows edema and areas of thrombosis and capillary hemorrhages. There is basophilic invasion of the posterior lobe of the pituitary body.

The conservative treatment of eclampsia can be divided into four parts. (1) Control of convulsions. (2) General measures. (3) Delivery of the patient. (4) Postpartum care.

Concerning the control of convulsions, there are various methods and drugs in use at the present time. The ultraconservative

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Read before the Medical Association of Georgia, Savannah, April 25, 1940.

group is best illustrated by Stroganoff's clinic. He does not believe in the induction of labor, and uses large doses of morphine and chloral hydrate to control the convulsions. He advocates chloroform during the convulsive seizure and also venesection. Another conservative group advocates the Rotunda treatment. This is very similar to the method of Stroganoff, but adds colonic irrigation, gastric lavage, purgation, and starvation. The statistics published of both these clinics are exceedingly favorable, which speaks well for their methods of treatment; however, most large clinics in this country favor a modification of these methods. For control of convulsions the drugs most frequently used are morphine, magnesium sulphate intravenously, paraldehyde, chloral hydrate, and the most recent barbiturate group. The convulsions can definitely be controlled by use of these drugs. Of course all these drugs are toxic, but some less so than others. Morphine has the disadvantage of causing depression of the respiratory center of both mother and fetus with the resultant anoxemia which causes serious sequelae in the fetus. Magnesium sulphate intravenously may cause serious respiratory embarrassment and it is wise to have on hand 10 cc. of a 25 per cent calcium chloride solution. Chloral hydrate is a circulatory depressant and does not enjoy as wide a use as some of the others. The barbiturates are reasonably safe and large doses can be given without anticipating unfortunate side-effects. Probably the best plan of all would be to use a combination of several, thus minimizing the varying deleterious effects.

Besides the use of these powerful central nervous system depressants, general measures in common use in the treatment of convulsions from any cause should be instituted. These consist of a dark, quiet room, no visitors, and a minimum disturbance of the patient. Mouth gag should be handy; the patient should be kept on the side to prevent inspiration of mucus or blood; after each convulsion the head should be lowered over the side of the bed to facilitate drainage of the air passages. During the actual convulsion no anesthetic should be given; chloroform is definitely contraindicated. After the convulsion, the inhalation of oxygen for five minutes seems advisable.

In considering the general measures, too much stress cannot be laid on the importance of hypertonic dextrose solution intravenously. This plays an important part in liver regeneration and protection. It assists in reduction of edema of the tissues and particularly, the brain. It acts as a diuretic and supplies some very necessary calories. In cases where there is little or no edema, a 5 or 10 per cent solution of dextrose may be used instead of the 20 or 25 per cent. While the patient is in a comatose state a catheter should be left in the bladder. I personally feel that there is a definite benefit from a thorough catharsis, but I do not believe in excessive purgation. Magnesium sulphate is the choice of drugs for this purpose. Some of the older measures which the highest current opinion thinks wise to omit are extensive purgation, colonic irrigation, gastric lavage, and sweating. Venesection is still used in some clinics but has almost been discarded.

Concerning the delivery of the patient, approximately three-fourths of these patients enter labor spontaneously. Of those who do not, measures for delivery should be instituted; however, no active measures should be taken to induce labor until the patient has recovered from the shock of the convulsions and general condition has improved. Usually six to ten hours is sufficiently long to wait before inducing labor. It is always well to remember that many toxemic cases result in permanent kidney damage, and early delivery is of prime importance. This may be accomplished by several methods. It is well to try medical induction first; using castor oil, but no quinine or pituitrin. If this fails, labor may be induced by artificial rupture of the membranes or the insertion of bougies, or hydrostatic bags. Accouchement forcé is decidedly passé; disastrous results have attended its use in former times. Statistics show the mortality nearly double that of conservative methods; hence, manual or instrumental dilatation of the cervix fol-

lowed by either forceps or version, multiple cervical incisions, vaginal hysterotomy, and cesarean section are mentioned only to be condemned. Cesarean section has little, if any, place in the treatment of eclampsia, but is still widely used by those doing obstetrics with marked surgical inclinations. The only time cesarean section should be considered is when strong obstetric indication exists; such as, pelvic disproportion or primiparas with long rigid cervices; also in cases of small babies in elderly primiparas that would otherwise be lost due to the duress of a long labor. If and when cesarean section seems the most suitable method of delivery, local anesthesia is preferred. Pituitrin should not be used as an adjunct to medical or instrumental induction, because pituitary body disturbances may be a factor in the production of eclampsia, and pituitrin has been suspected of causing convulsions in this condition; if you must use it, pitocin is preferable to pituitrin. When the second stage of labor is reached, it is wise to conserve the strength of the patient and terminate delivery by forceps.

The general measures should not cease after the delivery of the patient. A close watch should be kept on the blood pressure reading; some sedation should be continued; a salt-poor and protein-poor diet should be ordered; and a close check kept on the fluid intake and output. A safe rule is to make the intake approximate the output of the preceding day.

This paper primarily concerns eclampsia, so a discussion of the toxemias in general is not in order; however, adequate prenatal supervision will permit the early recognition of the toxemias and proper treatment will almost eliminate eclampsia; whereas, the treatment of eclampsia is conservative that of severe pre-eclamptic toxemia should be the reverse. The permanent kidney damage frequently resulting from prolonged or increasingly severe pre-eclampsia justifies early interruption of pregnancy regardless of the maturity of the fetus. Complete recovery of the mother with no permanent damage as a result of the toxemia will permit her to have other babies; while irrevocable damage may preclude such a happy eventuality. Factors to be considered regarding the proper time for interference are studies of blood pressure, kidney function, changes in the retinal vessels, and fluid retention. Blood chemistry gives varying results and is not a reliable criterion. Renal function may be tested in a practical manner by putting additional work on the kidneys. One method is by increasing markedly the solids to be secreted, such as in the urea concentration test:—15 grams of urea dissolved in 100 cc. of water is given; specimens obtained in one or two hours should show a urea concentration above 2 per cent in one or the other. In this test it is essential that the patient have little fluid for 18 to 24 hours preceding the test. Another practical method is to determine the ability of the kidneys to produce a concentrated urine by diminishing the fluid intake:—no fluids or food should be taken after supper; the following morning specimens of urine are collected separately at 7, 8, 9, and 10 o'clock. The first specimen is discarded but the specific gravity of each of the other three is recorded. This should be 1.026 to 1.034 if the function is normal; below 1.020 shows definite impairment; when the maximum is 1.010 or less, there is severe impairment. In the presence of edema of any degree, this test is faulty because fluid absorbed from edematous tissues would naturally partially nullify the preliminary "drying out" process, with the resultant lowering of the specific gravity. Phenolsulphonphthalein and similar tests are helpful but not entirely reliable.

Summary

1. Eclampsia can almost be eliminated by careful prenatal supervision with interruption of the pregnancy before the toxemia is too advanced.

2. Eclamptic convulsions should be controlled by morphine, magnesium sulphate intravenously, and the barbiturates before any measures for delivery are instituted.

3. After recovery from shock, delivery should be consummated by conservative measures, labor being induced by medical means, or artificially rupturing the mem-

brane, with assistance to the patient during the second stage of labor by means of forceps.

4. Accouchement forcé by manual or instrumental dilatation of the cervix, cervical incisions, or vaginal hysterotomy cannot be too strongly condemned.

5. Cesarean section should not be invoked except in those cases with a strong obstetric indication.

6. Careful postpartum supervision is necessary with particular attention to sedation, blood pressure, and fluid intake and output. Forty ounces of urine a day keeps the convulsions away!

7. No future pregnancies are advisable for at least two or three years, and then only if kidney function, blood pressure, and blood chemistry findings are satisfactory.

The expanding efforts of the medical profession have shown wonderful results and continued improvements are anticipated.—Ed.

THE MANAGEMENT OF BREECH PRESENTATION

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Augusta

The gravity of breech presentation for the fetus is best shown by a review of the summary of one of the most enlightening treatises ever written on this subject. This is the analysis of breech deliveries in Brooklyn hospitals by Gordon, Garlick, and Oginz:

"In thirty-two Brooklyn hospitals 3.301 breech deliveries occurred with twenty-one maternal deaths. Cases studied included 302 prematures, 53 cases with serious congenital defects, 40 macerated fetuses, and 230 cases of multiple pregnancy, in which 290 fetuses presented by the breech. The 2,601 cases in which the fetus weighed 2,500 gm. or more were studied from the standpoint of management and were separated into four groups. The 1,597 cases of spontaneous and assisted delivery showed a fetal mortality rate of 6.7 per cent, and injury to 32 babies, 2 per cent. In 555 cases of extraction fetal mortality rate of 18.7 per cent was shown; and 28 babies, 5 per cent, were injured. Four hundred five cases in which the breech was broken up showed a fetal mortality rate of 28.9 per cent; 40 babies, 9.9 per cent, were injured. Forty-four cases of cesarean section showed that material mortality amounted to 11.4 per cent and fetal mortality, 0.45 per cent. One hund[illegible] seventy-two patients had abnormal pelves, and [illegible] mor- [illegible] histories of previous breech presentation. Fetal mortality in 163 primiparas over thirty years of age and in 540 cases in which the fetus weighed more than 4,000 gm. closely approximated the average fetal mortality of the entire series. Prolapse of the cord in 97 cases showed a fetal mortality of 46.4 per cent. In the entire series of 3,301 cases there were 617 fetal deaths, a total fetal death rate of 20.3 per cent. Excluding 302 prematures, there were 458 fetal deaths, or 15.3 per cent. Deducting those with serious congenital defects (53), macerated fetuses (40), and twins (290), there were 2,616 cases in which the fetus weighed 2,500 gm. or over, with 332 fetal deaths, or 12.6 per cent; 61 per cent of these cases delivered spontaneously or with some assistance. Fetal mortality and injury increased with extraction and was highest when the breech was broken up. Proper management is the most important factor."

Read before the Medical Associa[illegible] April 25, 1940.

[illegible] was enthusiastic [illegible] In his series there was

Rulison states that probably 64,000 cases occur per year in the United States with a fetal mortality conservatively estimated at 20 per cent, or 13,000 deaths per year. He says textbooks have not kept pace with advances in conscientious thought on the subject.

Mohler, in a report of 709 cases at the Philadelphia Lying-in Hospital shows a fetal mortality three times that in cephalic presentations. Danforth and Galloway, at an exclusive hospital in Evanston, Illinois, reported 285 cases with a gross fetal mortality of 18.8 per cent, one half of which, however, were previable. Excluding these and monsters, the fetal death rate was still almost 6 per cent. Soule, in St. Louis Maternity Hospital, reported 328 cases with the fetus weighing 5 pounds or more, with 7 per cent fetal mortality. Goethals, at Boston Lying-in Hospital, reviewed 1242 breech deliveries with a gross mortality to the fetus of 25.7 per cent. After excluding all accompanying pathology as placenta previa, prolapse of the cord, malformed fetuses, etc., he computes the risk to the living, non-deformed, full-term fetus in utero to be born by breech as practically 7 per cent.

Cannell and Dodek, of Cleveland [illegible] ternity Hospital, reported 4[illegible] [illegible]casions pound fetuses delivered b[illegible] corrected mortality of [illegible] per cent. [illegible] paper on prophylactic total [illegible] version was written in 1936 by [illegible] Thornhill who studied 58 breech presentations with fetus 2500 grams or more in weight. He successfully turned 49 or 84.5 per cent mainly during the 8th month, with

lowering of fetal mortality to that of cephalic presentation. In a communication with Dr. Thornhill he answered: "Following is the report on 18 cases of breech presentation, supplementing the 58 cases reported to the Virginia State Society in 1935. As in the other report, these are primary breech presentations; and cases of twins, maldevelopment, and macerated fetus, are excluded.

Eighteen Cases

White 12 Colored 6

Primiparas 7 Multiparas 11

External version successful in 17. One failed; see note.

Turned in 8th month 14.

Turned in 9th month 3.

Required 2nd turning 2.

Required 3rd turning 1. (Ultimately required cesarean for disproportion).

Spontaneous vertex delivery 15 (of the 17 turned).

One of these was a persistent occiput posterior, but the length of labor was only 3 hours.

Longest labor was 16 hours; shortest, 3 hours.

Stillborn—0.

Injured child—no injuries were apparent.

Smallest child 6½ lbs.; largest, 10 lbs.

Complications with cord or placenta, none.

Delivered at home, 10.

Operative deliveries, 2.

1. Primipara, moderate contraction of pelvis with increased inclination, external version 3 times, unengaged when labor began, elective cesarean, baby weighed 8 lbs. 10 ozs.
2. Para 2, colored, clinic case, previous cesarean apparently for disproportion, breech converted to vertex in 8th month and stayed, but in hospital under another man's service, an elective cesarean was done, for disproportion and previous cesarean. At operation, child was in vertex position.

*The case where external version failed was a colored para—7, weighing 195 lbs. Our attempt was made in the 8th month, twice. When she entered labor, baby was found in vertex, having turned spontaneously in the 9th month. She delivered spontaneously, but the baby was smaller than any of the 17 we had succeeded in turning,—6 lbs.

In our attempts at external version, we use no anesthetics, nor sedatives, and gentleness is insisted upon.

This brings our total report, to date, to the following:

Primary otherwise-normal breech cases diagnosed	76
External version successful in	66
Percentage of success	86.8%
Total number primiparas	30
Ext. version successful in	23
Percentage success in primiparas	76.6%

(Did not count the primipara requiring cesarean, in the last series, as "successful," though the version was accomplished satisfactorily).

Siegel and McNally are enthusiastic in regard to use of external version in breech presentations and report attempts in 77 cases with success in 55 cases, 85 per cent success in multiparae and 71 per cent success in primiparae. They had no patient bleed; two had the membranes rupture. There were no premature labors, one prolapse of cord and one at labor in a multipara with delivery of a living child. There was only one fetal death and this child born precipitately in the home drowned in a pool of amniotic fluid. They were obliged to repeat the version in 5 patients, 3 times in 2 patients and 4 times in one, without apparent danger. They collected records of 2269 cases with 3.13 per cent gross fetal mortality.

In England, also, the procedure was studied and met with equal success and similar freedom from complications. Macafee and McClure in 1937 reported turning 134 cases with one fetal death due to turning.

Among the forty authors here reviewed, the following advised the routine use of prophylactic external version, provided there were no contraindications, placenta praevia, fetal malformation, or marked change in fetal heart rate during the attempt: Siegel and McNally, Goethals, Lapham, J. C. Hurst, Danforth and Galloway, Macafee and McClure, Gibberd, Rulison, Thornhill, Ryder, Cragin, Williams, Bartholomew, M. E. Davis, Studdiford, Taussig, Dearnley, King and Gladden. The following do not mention it, or were opposed, but none of the latter stated that they had given the method a trial: Schuman, Vaux, C. H. Davis, H. Meyer, Soule, Swartz, Dunbar, Crichton. Piper and Bochman do not advise it because students need training in breech extraction.

TECHNIC OF EXTERNAL VERSION

Bartholomew states that the most favorable time for prophylactic external version is during the eighth month, but it should be attempted any time when breech is found from the seventh month to term. His technic follows:

"The essential points are to raise the patient's head and shoulders somewhat and flex the thighs in order to obtain as much relaxation of the abdominal muscles

as possible; the bladder should be emptied; all manipulation should be carried out as gently as possible, and there must be an accurate preliminary diagnosis of the presentation and position. The breech is first raised from the pelvis, with both hands if necessary, and carried toward the iliac fossa on the side opposite to that on which the head is to be brought down; the head is then pushed down toward the pelvis with one hand while the breech is pushed up toward the fundus with the other hand by very gradual, intermittent pressure. As a rule, it will be found easier to make the forehead advance, rather than the occiput. If the breech is fixed in the pelvis, it may be disengaged by the aid of the Trendelenburg position or by pressure with two fingers inserted in the vagina. It is not necessary to use a bandage to attempt to retain the corrected presentation, as even with the bandage, the version may have to be repeated one or more times before labor."

Other authors differ only in minor details. Few recommend anesthesia and it probably is safer not to use it. The Trendelenburg position is used by Macafee and McClure, Studdiford and others, in order to get the presenting part out of the true pelvis. Ryder accomplishes this by knee chest position. The bladder should be empty and some advise to push up the presenting part through the rectum or vagina. Some advise talcum powder on the abdomen to facilitate turning the fetus. Practically none of those with large experience use a binder to hold the fetus in the inverted position, but rely upon repeated versions if the fetus resumes its original position. It is always wise to keep a careful record of the fetal heart tones and to desist if they become too slow.

Management of Breech Delivery

A discussion of the technic of breech delivery resolves itself, in the main, around conservatism versus radicalism. Conservative management involves a "hands off" policy allowing the patient to deliver the fetus within two hours of the second stage of labor. Aid in directing the mechanism of labor after this period is still conservative.

The advantages of this method are lowering of the fetal injuries, to wit, better adaptation of the sides of the fetal head to the narrowest pelvic inlet diameter and consequently, fewer tentorial tears, as shown by Holland, fewer subluxations of the squamous portion of the occipital bone as demonstrated by Hemsath, and practically no spinal cord injuries of Pierson, Crothers and Ford. The technic of this method is well illustrated by Studdiford as follows:

"Although many fewer spontaneous deliveries are seen at Sloane Hospital, intervention in breech deliveries has been reduced as much as possible. The breech is allowed to be born spontaneously, light anesthesia being given with the pains. Often, if the breech is fixed in the vulva, this process will be hastened by slight traction with a finger in the anterior groin. As soon as the angles of the scapulae are seen, the anesthesia is deepened; then the shoulders are rotated in turn under the symphysis so that the arms can be reduced in an anterior position. Often it is found easier to deliver the posterior arm as such without rotation. Following this, the head is placed in either the oblique or the transverse diameter of the pelvic inlet, is well flexed and is guided through the pelvis with the aid of moderate suprapubic pressure. The latter should be applied with even force, never abruptly and in an oblique direction favoring flexion of the head. The wrong application of such pressure must account for many intracranial injuries. It may be applied by the operator himself or by an assistant. If the latter is used, the operator should instruct him as to the position of the head so that pressure may be applied intelligently. If the head does not go through the oblique diameter just attempted, it often will go through the other or through the transverse. Plenty of time is available in order to find the most favorable position for the head to pass the superior strait. The dangers of pulling the head through the anteroposterior diameter of the brim are obvious. Once in the hollow of the sacrum, the head is rotated to an anteroposterior position. Before rotating, one should be sure that the biparietal diameter is past the brim. In shallow pelvis this does not happen until the chin is well down on the pelvic floor. Care is taken to get the occiput under the symphysis and to avoid torsion and angulation of the neck. The head is then delivered by the Mauriceau maneuver. Often an episiotomy is of great assistance, especially in primiparas. Too much emphasis cannot be laid on gentleness and slowness at this the most dangerous part of the delivery as far as the baby is concerned. It might be added that only on rare occasions is the use of forceps on the aftercoming head found necessary."

Practically no one today recommends delivery through an undilated cervix and seldom does anyone suggest manual dilatation. It is fraught with the greatest danger to the mother, consequently the radical type of breech management entails delivery soon after the cervix is fully dilated. Those who lean toward this are the Potters, Goethals, Rulison, Bill, etc.; and the method may be described in the words of Bill:

"I would like to sum up what I think are the important steps in the management of a breech delivery.

When there is full dilatation proceed to deliver the baby. Thoroughly iron out the whole vaginal canal and usually perform an episiotomy. Never take for granted that the os is dilated even though the breech has passed through it. Examine the cervix and dilate the os manually if necessary. Relax the lower uterine segment by complete anesthesia, bring down both feet, one at a time, and do the extraction. Do not use the Mauriceau grasp but deliver the aftercoming head by suprapubic pressure on the head aided by the guiding traction and flexion produced by the finger in the child's mouth. Be sure that the head does not lie in the anteroposterior diameter of the pelvic inlet. Rotate the head so that it will enter the pelvic brim in the transverse or oblique position. Forceps on the aftercoming head are, to my mind, rarely necessary. If this procedure is followed I see no reason why there should be much more difficulty in extracting a breech in the case of a primipara than in that of a multipara, or following a podalic version."

The obstetricians who favor this method usually have considerable mechanical manual dexterity and have trained themselves to such an extent that they have a low mortality. A study of their records reveals that the fetal mortality is low, but no lower than those of the conservative method. In this connection it is interesting to note the experience at Sloane Hospital for Women as reported by Caldwell and Studdiford. For several years the breech deliveries were under the personal care of Dr. Goethals who by active delivery after full dilatation of the cervix, secured such a low mortality that the method was adopted for the whole service. But the fetal mortality rose rapidly in the hands of the many resident operators and they have returned to the "hands off" policy with coincident reduction in fetal death rate.

Regardless of what care is given it is essential that all of the pertinent individual factors be known as far as possible. If it is vital to know the size of the pelvis in cephalic presentation it is even more so in breech. For accuracy this entails some form of roentgen pelvimetry; and for practical purposes the knowledge of the size and contour of the inlet. This is most simply, rapidly, and economically done in pregnancy or in labor, by the Thoms' method using the device for fixing the inlet plane as developed at the University Hospital. In gynecoid or platypelloid type of inlet the head should enter in transverse position, while if the pelvic inlet is anthropoid type the head should enter in the anterior posterior position. Only by x-ray study of the pelvis in relation to the size of the fetal head can one be able to correctly choose cesarean operation in its management and this choice should be rare.

It is also essential to ascertain the relative size of the fetus. Measurement of the height of the fundus by calipers from the middle of the symphysis should not be more than 30 cm. for a fetus up to 8 pounds. Goethals has made roentgen measurement of the fetal head in 100 cases of breech presentation by stereoroentgenographic method. Failure occurred in about 50 per cent because of change of position ofthe fetus between the two exposures. This indicates a need for a single exposure method for measurement of the fetal head. Prolapsed cord should be replaced and held in position. Attention should be directed to secure at the minor expense of the mother, a freer passage for the endangered baby, to wit, the slowly dilating cervix may be hastened by large Voorhees bag. Some advise the large size bag to dilate the vagina. Manual dilation of the vagina is quite routine with many writers on the subject and episiotomy justly should be more frequently performed. The Wiegand-Martin fundal pressure method of pushing on the head rather than pulling on the body is highly favored if not too great pressure is used. This helps to maintain head flexion and also aids in preventing the arms from rising above the head.

Possibly the greatest advance in care of breech in the last 20 years next to prophylactic external version is the increased use of forceps to the aftercoming head. Almost any style of instrument will work; but the special forceps devised by Piper fits better and is recommended. Forceps should be applied to the sides of the head if reasonable fundal pressure does not deliver it. A perineal retractor such as devised by Seibels is of value in allowing free air passage to the respiratory inlet of the fetus during expulsion or extraction of the head which may then be done more deliberately.

Finally, but very essential are proper methods of resuscitation of the new-born;

the prime requisites of which are first, gentleness and application of heat, second, aspiration of mucus and other fluids from the pharynx, preferably by a soft rubber ear syringe; third, introduction of oxygen into the lungs, but not under greater than 20 cm. of water pressure. We have found successful a simple modification of the Flagg resuscitator in which we use direct vision tracheal intubation.

It is here suggested that future reduction in fetal mortality in breech presentation will be obtained by (1) wider use of the most valuable of all procedures, prophylactic external version; (2) by accurate roentgen-ray studies of the size of the fetal head in relation to the pelvis, mainly the inlet size and contour so that the sides of the head may be guided through the narnowest diameter of the inlet; and (3) by increased use of scientific methods of infant resuscitation.

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DIAGNOSIS AND MANAGEMENT OF HEMORRHAGE IN THE LAST TRIMESTER OF PREGNANCY

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Among the danger signals which pregnant women are cautioned to report is bleeding, particularly in the last trimester of pregnancy. It would seem unnecessary to emphasize this symptom as a warning of some abnormality, but woman's familiarity with bleeding, blunts, to some extent, any feeling of fear concerning it. Furthermore many patients hold the idea that it is not unusual for a period to occur during pregnancy.

If the patient is at fault in some cases, for not reporting this particular symptom, the physician is likewise often at fault for his failure to investigate it or take the proper action in treating it. If this seems an unjust indictment of the medical profession we need only to refer to the histories of these patients finally sent into the hospital as emergencies, having been pre-

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viously kept in bed at home for days or even weeks with recurring hemorrhages, possibly in the hope that rest in bed is a specific for such bleeding or that labor might come on without the necessity of taking any action.

Leaving aside minor causes of bleeding such as fibroid, cedvical polyp, placental infarction, trauma or early effacement and dilatation of the cervix, the two conditions of paramount importance, calling for prompt differential diagnosis and proper treatment are placenta praevia and premature separation of the placenta.

Let us assume that the doctor has been called to see a patient on account of a moderately severe hemorrhage in the eighth month of pregnancy. His first action, as he feels her pulse and appraises her general condition, is to obtain a brief history of the circustances preceding and attending the bleeding.

If edema and headache have been present for days or weeks preceding the hemorrhage, the condition is probably premature separation of the placenta. If bleeding came on suddenly without cause or warning and without pain, the condition must be placenta praevia.

While the diagnosis can therefore be made almost entirely on the basis of the history, there is one pathognomonic finding on examination, by which the physician may make the diagnosis instantly even though he be blindfolded and not permitted to question the patient. If, on palpating the patient's abdomen, he finds it board-like in rigidity and tender, the diagnosis is premature separation of the placenta; if he finds it soft and not tender the diagnosis is placenta praevia.

While shock may be present in placenta praevia it is much more frequent and severe in premature separation of the placenta. Hence, before going any further with the examination or treatment, the physician must determine if shock is present and if so, combat it by suitable measures.

The patient in shock accompanying premature separation of the placenta, will appear apathetic and semi-conscious. She will show a gray pallor, tinged with cyanosis, a very low blood pressure, perhaps 80/50 or less, a pulse moderately increased in rate and of poor volume, a subnormal temperature and the skin cool and covered with cold perspiration. If the shock follows hemorrhage due to placenta pracvia, the patient is more alert due to absence of toxemia, and complains of air hunger and thirst.

It is fundamental that no treatment of the primary condition, premature separation of the placenta, should be undertaken until the patient is first relieved of shock. The foot of the bed should be elevated, hot blankets and hot water bags applied and morphine given. An intravenous injection of 500 cc. of 10 per cent glucose solution in distilled water, benefits both the shock and the damaged liver. In grave cases of shock, gum acacia solution may be given intravenously. In placenta praevia, since the underlying cause of shock is loss of blood rather than toxemia, a transfusion is more effective. By use of the above measures, shock is effectively combated and the patient's condition is improved within an hour or less. The blood pressure, if there is an underlying toxemia, will show a typical elevation above normal.

During this enforced period of waiting, certain other observations and examinations may be made without disturbing the patient. The blood count, hemoglobin and clotting time may be done and the blood typed and matched for possible transfusion. Slight restlessness of the patient and increased rigidity of the uterus at intervals of several minutes indicate the occurrence of labor pains. Early observation of the height of the fundus should be made so that evidence of subsequent distention due to concealed hemorrhage may be obtained. The blood pressure and pulse should be checked at frequent intervals. The rigidity of the uterus may prevent satisfactory diagnosis of the presentation and position of the baby, and the fetal heart sounds may not be heard, due either to the rigidity of the uterus or death of the baby. Finally, the patient should be shaved and thoroughly cleansed in preparation for delivery.

It must be emphasized that a positive

diagnosis of premature separation of the placenta or placenta praevia does not require a vaginal examination in either case. A painless, causeless hemorrhage of considerable amount, in the last trimester of pregnancy, and a soft non-tender uterus indicate placenta praevia just as surely as if the examining finger palpated the placenta within the internal os of the cervix. On the other hand, a hemorrhage, accompanied by pain at the onset and followed by persistent pain and a rigid tender uterus and associated evidence of toxemia indicate premature separation of the placenta just as surely as if the examining finger failed to find the placenta within the cervix.

Hence, on the basis of the above findings, the physician should be certain as to which condition is present and defer vaginal examination until it is to be made as an essential part of the method of treatment, if indicated. To make a hurried vaginal examination, when called to see a patient who has had a hemorrhage typical of placenta praevia, is to risk not only another hemorrhage without facilities or preparation to combat it, but also to risk sepsis after delivery. Whether the patient can be transported to adequate hospital facilities, or lacking these, will have to be treated at home, the plan of action should first be mapped out and only after securing the necessary help and facilities, should a vaginal examination be made. Likewise, packing, hurriedly inserted on first seeing the patient not only does not insure control of hemorrhage but definitely adds to the risk of infection. It is equally unnecessary and unwise to examine hurriedly or pack a patient suspected of having premature separation of the placenta until the examination can be made as an essential part of the treatment employed.

As to treatment, there is a very important fundamental difference between the two conditions. In premature separation of the placenta, on account of the frequently associated toxemia, the patient is either in shock or is continually on the verge of it. Any procedure involving trauma, such as cesarean section, internal version and extraction, difficult forceps delivery or manual dilatation of the cervix, is very apt to precipitate or aggravate shock. Statistics abundantly prove that the mortality rate rapidly increases with any of the above operative procedures, even though the patient may not have lost much blood. On the contrary shock is not as much of a problem in placenta praevia and if the patient has been transfused or is not too anemic, operative procedures are better tolerated.

The treatment of premature separation of the placenta should therefore be conservative. After treating or ruling out shock, a careful vaginal examination should be made to note the condition of the cervix, the presentation and position of the baby and to artificially rupture the membranes. The latter may be more easily done by the use of the Wilson membrane rupturer, an instrument devised by Dr. L. Wilson of Charleston, S. C. This will further stimulate pains and hasten labor. A catheterized specimen of urine obtained at this examination, will further establish the presence and degree of toxemia. A tight abdominal binder may be applied if there is any evidence of concealed hemorrhage and distention of the uterus. From this time on, the physician can best serve the patient by supportive treatment, repeating sedatives or intravenous glucose solution if necessary and awaiting natural delivery. If assistance is necessary he should endeavor to limit it to a simple low forceps delivery and lessen trauma by doing episiotomy under procaine hydrochloride infiltration.

The third stage is often very short and easy due to previous separation of the placenta. The loose black clots and darkened surface of the placenta with adherent clots give further proof of the diagnosis. Ergonovine should be given and repeated if necessary to insure efficient contraction of the uterus. Packing is seldom necessary and is inadvisable on account of increased risk of shock and infection. The nurse or physician should remain with the patient for several hours after delivery.

In contrast to the treatment of premature separation of the placenta, that of placenta praevia should not only include supportive

measures but also active intervention. Here, the danger is not from shock and toxemia, but from uncontrollable loss of blood during dilatation. There is no expectant treatment and no safety in bed-rest or procrastination. Under the influence of recurring Braxton-Hicks contractions, in preparation of the lower uterine segment for labor, hemorrhages of increasing amount are almost certain to occur from time to time. The patient rapidly becomes anemic and unable to withstand the inevitable hemorrhage of labor. Plans for interruption of pregnancy, regardless of its stage, and preparations for possible transfusion, should be made at the earliest moment after the first warning hemorrhage.

The problem to be solved is how to deliver the baby without exposing the patient to fatal hemorrhage during the slow process of dilatation of the cervix. Cesarean section has attained a deserved popularity, since, by this method, delivery can be rapidly performed with scarcely more loss of blood than that attending the operation itself. But to qualify safely for cesarean section the patient must not be actually or potentially infected by careless, needless vaginal examinations, packing or previous attempts to deliver from below. She must be transfused during or just before operation if too anemic.

If cesarean is contraindicated or impossible on account of inadequate facilities, some other form of treatment such as Braxton-Hicks version, Voorhees bag, artificial rupture of the membranes in conjunction with a tight Beck abdominal binder, Willett's forceps, or a tight cervical and vaginal pack with the binder, may be used. These methods depend for their success on compression of the placenta to control bleeding, while labor is being stimulated and the cervix is dilating.

It is recommended that the patient be lightly anesthetized with ether for the initial vaginal examination to determine which one of the above measures is to be used. Some of them might well be done without anesthesia but until the examination is actually made, one cannot tell which procedure will be preferable or possible to perform. Whatever needs to be done, may be done more quickly under anesthesia and hence with less hemorrhage.

Braxton-Hicks version, if the cervix is partly dilated or dilatable, is preferable to the Voorhees bag, for when the latter comes through the cervix, severe hemorrhage may follow if the head does not come down promptly and assume the function of pressure, whereas, with a leg drawn down, hemorrhage is always under control. Unless the baby is dead, it would seem preferable to use a tight Beck binder to force the head against the placenta from above, rather than to traumatize it by grasping the scalp with Willett's forceps from below. The pack has come to be regarded as the least desirable method on account of the uncertainty of control or hemorrhage and the risk of infection.

If the patient is in active labor and the placenta is low-lying or marginal, artificial rupture of the membranes and a tight binder will permit the head to furnish all necessary pressure to control bleeding. In general, the less the placenta encroaches on the internal os and the greater the parity, the more safely and successfully the patient may be delivered by the vaginal route.

Finally the danger is not passed with the successful delivery of the baby and placenta. Patients have been lost within several hours after delivery through failure to pack the uterus and upper vagina tightly with gauze to prevent fatal postpartum bleeding. A pack, put in place with a Harper packer, in conjunction with ergonovine, effectively prevents this and should never be omitted.

CONCLUSIONS

1. The outstanding contrast in the symptoms and signs of placenta praevia and premature separation of the placenta should seldom permit confusing the two conditions.

2. The occurrence of a painless, causeless hemorrhage in the last trimester of pregnancy in placenta praevia and the presence of a rigid tender uterus in premature separation of the placenta, are pathognomonic.

3. The physician should refrain from making an initial, hurried vaginal exami-

nation in either condition, until it is done under proper antiseptic precautions as an essential part of a planned mode of treatment.

4. Supportive treatment is essential to success in either condition, transfusion being more specific for placenta praevia and hypertonic intravenous glucose solution and anti-shock measures for premature separation of the placenta.

5. Prompt and active intervention is imperative in placenta praevia, the bleeding being controlled either by rapid removal of the placenta as in cesarean section, or by some measure which insures persistent pressure on the placenta during labor.

6. A minimum of intervention, as artificial rupture of the membranes to hasten labor or simple low forceps delivery to terminate labor, if necessary, is imperative in premature separation of the placenta, due to the ever-present danger of actual or threatened shock. Cesarean section or forcible delivery is highly dangerous.

7. Following delivery of the placenta, the best assurance of safety in placenta praevia is a properly inserted uterine pack; in premature separation of the placenta, prophylactic treatment for shock and close observation for several hours.

THE MANAGEMENT OF OCCIPUT POSTERIOR POSITIONS

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When labor is complicated by any abnormality of position it then becomes pathologic. On account of its frequency, and unfavorable effect upon labor, occiput posterior position is of real concern for those assuming the responsibility of the conduct of labor. This abnormality of position and the involved mechanism is one of the most misunderstood and badly handled complications in labor, exacting the greatest toll in fetal life, maternal morbidity and often invalidism than any other obstetrical complication.

It is hopeless to draw any conclusion from the literature relative to the incidence of occiput posterior positions. Douglas[1] reports an incidence of 12.65 per cent, Danforth[2] 25.1 per cent, while Calkins[3] in making a careful study of the incidence of occiput posterior positions in a series of 2,130 occiput presentations found that there were 1,028 cases of occiput posterior as against 1,102 cases of occiput anterior, an incidence of 48.7 per cent. This great variation in incidence as reported from the three clinics can be explained by the care of study and stage of labor in which the examinations were made.

Since the mechanism of engagement is principally one of adaptation between the fetal skull and pelvis, it is evident that several factors may play a part in favoring the posterior rotation of the occiput after engagement. Caldwell and Malloy,[4] after studying 200 unselected cases early in labor, found that in 54 per cent of the cases the head presented at the pelvic inlet in the transverse position and that the pelvic types, android, anthropoid and flat definitely predispose to engagement in the occiput posterior position. Thoms[5] has called our attention to the fact that in transverse contractions (round and anthropoid) of the pelvic inlet either real or relative are far more frequent than hitherto supposed and have a most important place in occiput posterior positions. Hanson[6] considers the narrowing of the intraspinous diameter a factor in preventing anterior rotation. Jacobs[7] is of the opinion that faulty inclination is often responsible for occiput posterior, and especially evident in patients presenting the dystocia dystrophia type of syndrome. Other factors that may play a part in the causation of occiput posterior positions are (1) anomalies of flexion, (2) pendulous abdomen, (3) marked dextrorotation of uterus, (4) placenta on anterior wall, (5) unequal development of each side of the uterus, thus allowing the accommodation of the fetus to the more developed side, (6) distended urinary bladder, (7) unyielding soft parts, (8) ineffectual expulsive forces, and (9) the ability of the fetal head to mold easily, all have an important bearing on the successful culmina-

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tion of labor and have to be considered in estimating the factors in occiput posterior dystocia.

The early diagnosis of an occiput posterior position is of prime importance if the case is to be handled properly. Prenatal care should include a determination of the fetal position during the last weeks of pregnancy, this to be checked at the onset of labor and if there is any doubt, confirmed later by the location of the fontanels and sutures. On abdominal palpation the breech is found in the fundus and the back deep in the right or left flank, while the small parts are readily felt in the anterior position of the abdomen near the midline. If the head is not engaged, the occipitofrontal diameter of the head will be found in one of the obliques or transverse diameter of the pelvic inlet with the cephalic prominence pointing on the opposite side to the fetal back. The fetal heart, usually best heard over the fetal back, may be found anterior near the midline. Due to marked extension of the head, the thorax may be brought forward beneath the anterior abdominal wall, allowing the transmission of the heart sounds in this area. For this reason location of the fetal heart sounds may, if depended upon to the exclusion of other procedures, result in serious error in diagnosis and management. On vaginal examination the sagittal suture will be found in the right or left oblique diameter of the pelvis, with the small fontanel at its posterior end and the large fontanel at its anterior end, in the right or left anterior quadrant of the pelvis. In the presence of a poorly flexed head, which is often the case in occiput posterior positions, the anterior fontanel may be found more easily and the small one difficult to palpate.

The mechanism of labor in occiput posterior positions differs from that observed in the anterior varieties, in that the occiput has to rotate from the region of the sacroiliac synchondrosis to the symphysis and be delivered in the anterior position or rotate to the hollow of the sacrum and be delivered in the posterior position. Internal rotation usually takes place in midpelvis or when the head is in relation to the bony outlet, but occasionally the rotation is only partial or not at all, so that the occiput rotates to the transverse, obliquely anterior, obliquely posterior or posterior and there becomes arrested. According to Caldwell and Malloy[8] the common pelvis types usually responsible for the transverse and posterior arrest are the android with slight convergence of the side walls and the flat with its sacral concavity which allows the occiput to rotate posteriorly.

The percentage of cases that will rotate from the posterior to the anterior position will depend upon the management of the first stage and the length of time the patient is allowed to remain in the second stage. Danforth[2] found that 70 per cent rotated spontaneously with 2½ hours of second stage labor. Reddock[9], reporting a series from Charity Hospital, found that 78 per cent rotated spontaneously. Bill's[10] series, because of interference early in the second stage, shows only 28.8 per cent of spontaneous rotation. Calkins[3] found that by making a careful diagnosis and with conservative management 94 per cent of the occiput posteriors in his series of 1,028 rotated spontaneously.

Since it is conservatively estimated by most authorities that from 80 to 90 per cent of the occiput posterior presentations will rotate anteriorly and give no more trouble at delivery than may be expected of the anterior positions, we are concerned with the management of the remaining 10 to 20 per cent. Each case presents a different problem and the management cannot be standardized. Therefore, we find the methods of management that are used in various clinics are of interest. Caldwell[9] and his associates favor manual rotation to the transverse position followed by application of Barton's forceps, bringing the head down by lateral flexion and traction to the outlet where rotation is performed. Vaux[11] does not elect to interfere in the posterior position cases until the labor has ceased to progress for two hours. At the end of that time when the cervix is fully dilated and the membranes are unruptured he then does a version in preference to forceps applica-

tion and a rotation of the head in midpelvis. In the forceps cases he pulls the head down and rotates it in the lower and wider diameter of the pelvis, and feels it is a great mistake to attempt to rotate the head by forceps at any station in the pelvis other than the pelvic floor. Malhado[12] Danforth[13] Wallace[14] Proctor and Dickinson[15] prefer, with slight variations in technic, manual rotation of the occiput to the anterior position after which a cephalic application of forceps is made and delivery completed. The procedures favored by Bill[10] for the operative management of the second stage after the head has failed to rotate to the anterior position after one hour are internal podalic version, followed by immediate extraction, and rotation of the engaged head by forceps according to what has been termed the "modified Scanzoni maneuver" followed by forceps extraction. The "modified Scanzoni maneuver," as recommended by Bill, is that of rotating the head without traction in the same pelvic plane in which it lies, after which the forceps are reapplied and delivery made with occiput in the anterior position.

During the first stage the patient's strength must be conserved by the use of sedation and maintenance of proper fluid intake with sufficient carbohydrates to prevent acidosis. If fatigue develops, morphine 1/6 grain and scopolamine 1/150 grain given not sooner than 4 hours before the expected delivery but before exhaustion takes place, is of value in helping the patient to obtain rest. After such a period of rest and relaxation the cervix is often found to be completely dilated, head descended to a lower plane in the pelvis, and after one or two hours of active pains, labor often terminates with the occiput in the anterior position either spontaneously or with the aid of outlet forceps.

In those cases of long labor in which the head fails to advance and the cervix is slow in dilating, the x-ray is valuable in helping to estimate the relation between the fetal skull and pelvis, and to make a correct diagnosis as to position. However, care should be taken in making a prognosis from the x-ray plate because of factors such as yielding of soft parts, force of labor pains and ability of the fetal head to mold, all have an important bearing on the outcome of labor and are not shown on the x-ray plate.

The procedure that I favor is non-interference in occiput posterior position in the presence of normal progress of labor with no disproportion. Only if the head comes to a complete standstill at any level in the pelvis do I feel justified in interfering, and then only in the presence of complete dilatation. The condition of the patient, type of uterine pains and the cooperation of the patient with her voluntary efforts, should govern the time the second stage is allowed to continue without progress. Interference early in the second stage by doing a podalic version or rotating to the anterior position with forceps may give good results with the highly skilled obstetrician, but for the average operator, without ample assistance and poorly equipped delivery room, such interference will often result in loss of the infant and damage to the mother's pelvic supports. Allowing the patient to remain too long in the second stage without advancement may lead to the formation of a contraction ring, injury to the vital brain structures of the fetus, maternal exhaustion, predisposing her to hemorrhage and infection.

After two hours of hard second stage pains without engagement or the head becoming arrested in the high midpelvis, internal podalic version should be the method of choice. There must not be any undue disproportion and the uterus must be thoroughly relaxed with anesthesia before this operation is attempted. After the head is well engaged, and has become arrested in the obliquely posterior or transverse diameter, delivery may be managed by either manual rotation to the anterior position followed by application of forceps or Scanzoni rotation with double application of forceps.

Danforth's[13] technic or some modification such as that recommended by Proctor and Dickinson[15] and found practical in the author's management in rotating the occiput to the anterior position is advised. If the head fails to rotate, the whole hand (left in the right position, right in the left posi-

tion) is inserted in the vagina grasping the head between the thumb and fingers with the arm supinated. The head is turned as the arm is pronated, and the free hand of the operator pulls the anterior shoulder to the left or to the right toward or beyond the midline. The rotation is carried on until the sagittal suture is near or directly anteroposterior or even beyond this point, care being taken not to push the head too high upward, for dislodging it usually results in non-engagement. The delivery is then completed by the application of axis traction forceps in mid or low midpelvis. Should manual rotation fail, which is often the case when the head is impacted deep in the pelvis, rotation by forceps either in the plane in which the head lies or the head pulled down and rotated in the wider diameter at the pelvic outlet is advised. The application should be cephalic and not pelvic. When the forceps are properly applied in the right occiput posterior position the blades occupy the left and the sagittal suture, the right oblique diameter of the pelvis. In making the rotation the handles of the forceps should be swung through a wide downward arc, "monkey-wrench motion," instead of twisting. By twisting the handles the tip of the blades are given a wide swing, whereas when the handles are swung the blades merely turn through a narrow range with the head.

Those patients in whom, after several hours of second stage labor, the head is found very low in the pelvis or practically on the perineum and the occiput has rotated posteriorly, should be delivered with the occiput remaining posterior. If rotation of the head to the anterior position is attempted or accomplished in these cases, the vagina will suffer a serious and irreparable damage and the baby will be gravely and frequently fatally injured.

For a successful termination of labor with forceps there must (1) be a correct diagnosis of the position, (2) knowledge of the disproportion existing between the fetal head and pelvic cavity, (3) correct application of the blades to the diameter of the head which will permit the smallest diameter to come through following the line of least resistance, and (4) gentle force artfully applied in the direction followed by the head in the mechanism of normal labor.

Any operative procedure that may become necessary in effecting delivery in the small percentage of cases of occiput posterior presentations should first be preceded by complete dilatation of the cervix, completely emptied bladder and a thorough dilatation of the vaginal canal. Episiotomy should be done on all primiparas. The procedure prevents excessive traumatization and laceration of the tissues. The real merit is in the final results. These patients presenting later a birth canal more closely resembling that of the pregravid state and a general condition of well being so often lacking in women who have gone through a difficult operative delivery.

CONCLUSION

1. Occiput posterior positions, because of their relative frequency, unfavorable effect upon labor, remain a major obstetric problem.

2. The etiology is dependent upon the presence of abnormally directed force or some disproportion between the fetal skull and transverse diameter of the pelvic inlet and midpelvis, preventing proper adaptation and rotation of the occiput to the anterior position.

3. Successful management depends upon the preservation of the patient's strength and patiently waiting for complete dilatation, engagement and the rotation of the occiput to the more favorable anterior position.

4. Those cases that have become arrested after a reasonable time should be delivered by internal podalic version followed by extraction, manual rotation followed by forceps application, or forceps rotation followed by re-application of the forceps and delivery completed with the occiput in anterior position.

5. If the occiput has rotated posteriorly into the hollow of the sacrum, it is better to deliver as such either with or without instrumental aid.

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Discussion on Symposium on Obstetrics By Doctors McCord, Sharpley, Demmond, Torpin, Batholomew and Thompson

Dr. A. G. LeRoy (Tifton): I am very glad to have heard this Symposium on Obstetrics. I am sure every one who heard it will appreciate the points brought out and it will help us to do better obstetrics.

Since I am not doing general practice obstetrics, I am interested especially in Dr. Sharpley's and Dr. McCord's papers. I feel that Dr. Sharpley brought out some fine points on maternal mortality in the State of Georgia. Many of you know that in Tift County we have a Maternal Hygiene Department which has been in existence two and a half years sponsored by the Children's Bureau in cooperation with the County Health Department. We have five nurses with special training in obstetrics besides general public health training. These nurses actively assist the doctors in deliveries when requested. Last year they participated in 90 per cent of the deliveries in homes. We feel that this work has been a contributing factor in the reduction of maternal mortality in the county. We believe that this has helped some. The death rate last year was 6.4 and the year before, in 1938, it was 8.4. Five years previous to the establishment of the maternity hygiene program it was more than 14, which was one of the highest county rates in the State. We believe that this program is progress toward better obstetrical care in the homes. These nurses make home visits, post and prenatal, in the homes and also participate in the doctors' deliveries.

In listening to Dr. McCord's paper and also Dr. Sharpley's I thought of the midwife problem. Many of us live in rural sections and still have the midwife with us. They may be considered a necessary or unnecessary evil, but still we have to face facts. Tift county had last year 31 per cent of the deliveries made by midwives and previous to that about 44 per cent, so this is a challenge to the medical profession as to what will become of these indigent patients. We feel that the Health Department is trying to work out this problem. The average age of the midwife in Tift County is 58½ years and the youngest is 37. At present we have 16 certified midwives and we feel that their ages will make us think about who is going to take the place of the midwives if there are no young ones to take their places.

Dr. Henry C. Frech, Jr. (Savannah): All of the papers are well written and are excellent in the rendition of their subject matter. There is nothing I can add to or detract from them.

In reference to Dr. Torpin's paper, we are all aware of the factors producing a breech presentation. To reiterate, they are multiparity, prematurity, monstrosity, and contracted pelvis. This being the case, I think it would behoove us to secure an x-ray of the pelvis in every case of breech or suspected breech presentation. Dr. Torpin's method of pelvimetry gives us the size of the breech, of the pelvis, and of the aftercoming fetal head; consequently, if we know these factors, we can better outline the course we are going to follow at delivery.

Some women come in to us for delivery who have had previous cesarean sections or who have lost the baby because of breech delivery. In these cases, I think it is better to do a low cervical cesarean section rather than risk another breech delivery, particularly if there is a slight contraction of the pelvis. Of course, if external version can be done, following the method of Dr. Bartholomew, that would be the best solution to the problem, as it would decrease the fetal mortality rate from 20 per cent in breech deliveries to 3 per cent in cephalic presentations.

I have admonitions to make when doing a breech delivery

1. Take it slow and easy.
2. Do not exert too much traction on the baby's feet.
3. Do not pull on the baby's back, remembering that there is a spinal cord in the baby's spinal column.
4. Avoid arm injuries by doing away with pressure on the upper arm. Don't pull on the arm if you don't have to; then if you do, pull down very slowly from the elbow.
5. Avoid any excessive traction during the process of delivery of the aftercoming head. Firm but gentle abdominal pressure will often facilitate delivery of the aftercoming head after it has been flexed by a finger in the mouth. If this fails, Simpson or Piper forceps may be used. I don't think foreps ought to be applied to the aftercoming head unless the head is well within the pelvis.

In reference to Dr. Bartholomew's paper, I agree thoroughly with him and his management of placenta abruptio and placenta praevia. It is an excellent paper and I think if we would follow his outline for the management of placenta praevia and placenta abruptio that we would have a marked decrease in our fetal and maternal mortality rate in both of these conditions. The only thing I could add is that I think that here again if we do a cesarean section, it should be a low cervical cesarean as the mortality of a low cervical cesarean section is 2 per cent while that of the high classical cesarean is 10 per cent.

Referring to Dr. Thompson's paper, I wish to state

that I am in accord with his views and think that the added use of the barbiturates would have a tendency to give the patient plenty of relaxation between pains and in view of some cases it seems to hasten softening of the cervix and aids in dilation of this organ by the relaxing effect. If these patients are kept comfortable by the use of the barbiturates their families do not harass the physician, and 95 per cent of the cases of occiput posterior will deliver spontaneously; or when the cervix is dilated and they have made no progress for two hours, forceps may be applied, head rotated and patient delivered. If there is much contraction of the pelvis, I would urge low cervical cesarean and here again, the pelvimetry of Torpin is of great value.

Dr. Demmond said morphine may be used in eclampsia in order to control convulsions. Morphine is contraindicated in any condition in which there is cerebral edema. It has been proven by Dr. Temple Fay in his work that morphine in the presence of cerebral edema serves to increase the edema, and we do have cerebral edema in eclampsia. Therefore, I would not use morphin to control convulsions, but would use magnesium sulphate 10 c.c. of a 10 per cent solution intravenously every hour until the blood pressure is below 140 systolic. Barbiturates, nembutal, seconal should also not be used in eclampsia or pre-eclampsia because they are absorbed and destroyed by the liver. We all know that in eclampsia there is liver damage; therefore, the barbituric acid derivatives are definitly contraindicated in eclampsia. In order to control the edema which accompanies pre-eclampsia and eclampsia, it is distinctly advisable to give glucose in distilled water, preferably 1,000 cc. of 5 per cent glucose in distilled water every six to eight hours. Saline solutions are contraindicated unless there is an accompanying paralysis of the intestines as the sodium ion serves to increase the retention of fluids in the tissues; but of course, it should be given freely when one is dealing with paralytic ileus.

DR. LEROY has already discussed the papers of Dr. McCord and Dr. Sharpley. They covered the subject of Obstetrics very thoroughly, both from the Public Health view and that of the accoucheur.

Dr. E. C. Demmond (Savannah). Time is passing but there is one thing I wish to mention that was not discussed in Dr. Thompson's paper, and that is, the use of Kielland forceps in the treatment of persistent occipitoposterior positions. I realize that their use is more or less controversial but I think the reason they are not used more widely is that they have not been thoroughly tested by a great many obstetricians. About fifteen years ago Scadron published a description of the technic in Surgery, Gynecology and Obstetrics, and I use these forceps according to his directions. The results have been so satisfactory that I have ceased to worry too much about successfully consummating this type of delivery. I think you have to treat the family more than the patient. When the cervix is fully dilated I do not wait two to three hours hoping for a spontaneous delivery. I believe protracted labor is more likely to result in damage to the baby, and take increasing toll from the strength of the mother, than properly applied Kielland forceps. With Kielland forceps one is able to rotate and extract the baby without difficulty and without marking the baby.

THE TREATMENT OF INTRINSIC CORD DISEASE WITH VITAMIN E

R. F. SLAUGHTER, M.D.
HERVEY CLECKLEY, M.D.
Augusta

Interest in the development of neuromyopathic paresis and paralysis has become quite keen since the work of Evans and Burr[1] in 1928. These observers noted that rats kept on various simplified diets had to be given vitamin B in order to suckle their young adequately. Although the young appeared healthy at first, many suddenly developed paralysis about the twenty-first day. It was found that administration of small doses of vitamin E to the young rats prevented paralysis. In 1935 Ringsted[2] reported that rats deprived of vitamin E from the time of their weaning developed, at sixteen to twenty days of age, a paresis of the hind quarters followed by symmetrical denuding and hypalgesia of the legs and tail. Morgulis[3, 4] concluded from experimental work with rabbits that muscular dystrophy was a multiple vitamin deficiency disease. He stated that the properties of these two factors indicated that one is vitamin E and the other a member of the B complex, possibly vitamin B_4. He further stated that both the fat-soluble and water-soluble fraction of wheat germ appeared to be factors in preventing muscle dystrophy but that the fat-soluble fraction combined with yeast or with different vitamin B concentrates was effective in the absence of the water-soluble factor.

Einarson and Ringsted[5] in 1938, on the basis of experimental research in rats on vitamin E-free diet, came to the conclusion that if wheat germ oil is begun within the first six weeks of the special feeding, paresis does not develop, but that if the wheat germ oil is not begun until after eight weeks of vitamin E-free diet, paresis appears six or

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eight weeks later. At this later date wheat germ oil did not cure the paretic condition but apparently prevented its further development.

The process in pathology is apparently twofold. A primary muscular dystrophy has been noted in many animal experiments. Pathologic changes have also been observed in the central nervous system particularly affecting the posterior columns, the pyramidal tracts and the anterior horn cells. Einarson and Ringsted[5] compared the pathologic changes in their experimental animals with the pathology of amyotrophic lateral sclerosis. The pathology of amyotrophic lateral sclerosis as described by Aring and Cobb[6] is as follows: "degeneration of the ventral horn cells. The pyramidal tracts show marked loss of myelin and dropping out of axones. Cells of the ventral and lateral tracts are somewhat demyelinated, the dorsal alone standing out dark and normal in the Weigert stain. The nerve cells of the cervical, cranial and lumbosacral nuclei are the most affected. The cells become decreased in number and of those which remain only a few present a normal appearance; most of them are small, angular and pyknotic. There is some compensatory neuroglial proliferation. Similar changes are found in the Betz cells of the precentral convolutions, so the whole of the pyramidal tract shows degeneration. Perivascular infiltrations are occasionally found but are so slight as to be considered secondary to the process of degeneration." This description does not fit well with the pathologic picture as presented by Bicknell[7] on the basis of studies by Einarson and Ringsted: "The initial nervous lesion is a degeneration in the lumbar region of the proximal parts of the posterior root and the proprioceptive paths in the posterior tracts and probably in the uncrossed tactile paths. The amount of neuroglial reaction is inconstant depending apparently on the rapidity of the degeneration. The cells of the spinal ganglia are not affected. Degeneration of the anterior horn cells of the lumbar cord generally begins shortly after the degeneration of the posterior columns and progresses until it is more or less complete. With the death of the motor cells the motor fibers of the peripheral nerves degenerate and the muscles atrophy. The pyramidal tracts might be expected also to be constantly affected instead of only slightly and rarely, but these tracts are of very recent origin in the evolution of the nervous system, being unimportant in the rat and not being really analogous to those in man." What Einarson has described seems to fit more closely with combined systems disease; however, there are clinical aspects that are similar to amyotrophic lateral sclerosis. Bicknell pointed out that in the adult rat the nervous system is chiefly involved, in the young, the muscular system.

Amyotrophic lateral sclerosis is a condition ordinarily found in middle and later life. It may be rapidly progressive but is usually quite slow. Could amyotrophic lateral sclerosis be a chronic condition in man of the same process as that described by Einarson and Ringsted in rats? Or is the disorder observed in the experimental animals an atypical form of combined system disease? We are convinced that more experimental work is necessary to prove the relationship through pathology.

Subsequently to the reports of Bicknell[7] and of Wechsler[8] describing successful results in treating several cases of amyotrophic lateral sclerosis with vitamin E, we had the opportunity of observing a somewhat unusual case of primary cord disease who made a dramatic recovery after treatment with vitamin E.

Report of Case

H. P., an 18 year old basket ball star from the University of Georgia, was referred to the University Hospital by Dr. Peter B. Wright of Augusta and was admitted on the neurologic service on April 15, 1940, just after a very strenuous season in athletics. The complaint on admission was weakness and atrophy of the muscles of the left arm. The family history was entirely negative for familial diseases of the nervous system. The past history was of no significance except that he had been an athlete all of his life. He dated his illness to one month before admission when he noticed weakness in the left arm toward the end of the basket ball season. Following this he noticed a peculiar numbness in the entire left arm; with this there was a noticeable atrophy of the muscle. The last few days before admission there had been a dull, aching pain radiating down the posterior surface of the left arm.

He had not been able to button his coat for three or four days.

The general physical examination revealed a tall, thin boy of 18 years who looked as if he could not withstand the extreme physical exertion of basket ball but who apparently was very adept at the sport. There was no tenderness or abnormality of the neck or shoulders and no palpable evidence of cervical rib. General physical and laboratory examinations were not significant. The extremities showed a marked atrophy of the biceps and triceps, and there was some atrophy of the scapular muscles, the deltoid and the smaller muscles about the shoulder girdle. The muscles of the forearm were not affected. There was no atrophy of the intrinsic muscles of the hand. With this picture there was weakness of the entire extremity. Fibrillary twitchings were present in all the muscles involved and were more noticeable in the deltoid and biceps. There was a beginning reaction of degeneration. No objective diminution in any modality of sensation was found in the arm, but the patient complained of a feeling of numbness which he described as very disturbing. The biceps and triceps reflexes in the left arm were absent. The other reflexes were normal. There was a bilateral Babinski response with marked diminution in the abdominals. A lumbar puncture was done which revealed an initial pressure of 200 mm. of water. The Queckenstedt test gave a slow rise to 350 mm. of water followed by a slow fall to the original level. This caused no pain. Coughing and sneezing at this time caused no radiation of pain as is frequently seen after removal of a few cubic centimeters of spinal fluid. The cell count was 2 and total protein 83 mg. The Wassermann, colloidal gold and mastic tests were negative. An x-ray of the cervical vertebrae showed nothing significant. There was no cervical rib. Three cubic centimeters of Lipiodol was injected into the cisterna magna. This was followed by fluoroscopic examination which showed a pause at C_3 in the descent. The oil, however, descended to the cordal sac.

In view of these findings and our strong belief in the axiom of the inimitable Dr. Foster Kennedy that all patients who present symptoms of degenerative cord lesions that might be relieved by operation should be given this opportunity, a cervical laminectomy was done. The cervical cord appeared normal except for slight swelling with congestion of the vessels. There was no arachnoiditis.

A tentative diagnosis was made of early atypical amyotrophic lateral sclerosis. The age of the patient, the rapidity and distribution of the atrophy, and especially the unilaterality, were all unlike what is customarily described as amyothrophic lateral sclerosis. That the signs indicated severe and extensive damage of the anterior horn cells and some involvement of the pyramidal tracts, however, cannot be questioned. The patient was placed on wheat germ oil, one dram daily. He has made steady improvement which was continuing at his last visit on Sept. 18, 1940. At this visit the atrophy had improved to such a degree that there was no readily noticeable difference between the muscles of the two arms. Flexion and extension at the elbow, which at the time of admission had been scarcely 5 per cent of normal on the left, had increased to 90 per cent of normal. No Babinski response could be elicited. He desires to return to college this year to do regular scholastic work, and this permission has been given. Wheat germ oil was discontinued at this time to determine if without it the atrophy would recur.

Summary

1. A short survey of the literature of experimental work leading to vitamin E therapy in nervous system disorders is presented.

2. The pathology of paralysis in vitamin E deficient rats is presented and compared with known pathology in cases of amyotrophic lateral sclerosis.

3. A case of primary cord disease simulating in many respects the clinical picture of amyotrophic lateral sclerosis is presented.

4. There was virtually complete recovery following vitamin E therapy.

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FUNCTIONS OF THE MEDICAL SOCIETY

Sir Wiliam Osler, in an address before the New Haven Medical Society in 1903, made this statement on the functions of a medical society:

"The well-conducted medical society should represent a clearing house, in which every physician of the district would receive his intellectual rating, and in which he could find out his professional assets and liabilities. We doctors do not 'take stock' often enough, and are very apt to carry on our shelves stale, out-of-date goods. The society helps to keep a man 'up to the times,' and enables him to refurnish his mental shop with the latest wares. Rightly used, it may be a touchstone to which he can bring his experiences to the test and save him from falling into the rut of a few sequences. It keeps his mind open and receptive, and counteracts that tendency to premature senility.

THE PRESIDENT'S PAGE

National Defense Program

Everywhere we learn of the progress being made to bring to a successful conclusion the National Defense Program. Every American citizen should put his or her shoulders to the wheel and aid in every way possible this great undertaking. Already many of our members have been assigned to duty with the military services and no doubt others will soon be called to the colors. It is indeed a privilege to serve one's country in time of need.

Legislation

By the time you read this page the State Legislature will have adjourned. Our Committee on Public Policy and Legislation has been busy with numerous bills dealing with medical matters. At this writing it would appear we have held fast to that which is good and have discarded much of that which is bad. A full report of our legislative activities will be made before our House of Delegates in Macon, May 13, but on behalf of our committee I express my thanks to the various county medical societies that have cooperated to bring about such favorable results in new laws enacted and in old laws amended.

Macon Meeting

The Ninety-Second Annual Session of the Association will be held in the Municipal Auditorium, Macon, May 13-16. A full program has been prepared by our Committee on Scientific Work, which includes several noted guest speakers. The program will be published in next month's Journal. Make your plans to attend the meeting, which should include prompt notice to your favorite Macon hotel for a reservation. If you experience trouble obtaining a room communicate with Dr. Thomas Ross, General Chairman of Arrangements, 700 Spring Street, Macon.

J. C. Patterson, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.

MARCH, 1941

CHANGES IN HOSPITAL SERVICE IN TWENTY-FIVE YEAR PERIOD REVIEWED

Leaders in the hospital world have reviewed the important changes in the character and scope of hospital service during the past twenty-five years in the current issue of *Hospital Management*, Chicago. This the the twenty-fifth anniversary number of the publication.

Dr. Benjamin W. Black, director of Alameda Hospital and County Institutions, Oakland, Cal., and president of the American Hospital Association, points to the increased public confidence in hospital service resulting from higher standards and improved community relations efforts such as National Hospital Day, established in 1921 by *Hospital Management*.

Dr. Malcolm T. MacEachern, associate director of the American College of Surgeons, which initiated its program of hospital standardization in 1918, reports that 2,806 general hospitals are now on the approved list of the college, as compared with 89 in 1918.

Robert E. Neff, administrator of University of Iowa Hospitals, Iowa City, Ia., discusses hospital service from the economic standpoint, pointing out that with decreasing income available from investments and contributions, the state must be prepared to assist voluntary hospitals in caring for those who are unable to pay for hospital service.

Dr. C. Rufus Rorem, director of the Commission on Hospital Service of the American Hospital Association, reports that on January 1, 1941, 66 approved group hospital service plans were in operation, providing hospital care for 6,000,000 persons, as compared with 60,000 on January 1, 1935, and 600,000 on January 1, 1937. During 1941, he estimates, more than $35,000,000 will be paid to hospitals through these service groups.

Dr. S. S. Goldwater, head of the Associated Hospital Service of New York, former Commissioner of Hospitals of New York and former president of the American Hospital Association, says in an interview in this number that the next step in the service plans will be the establishment of ward service for group members on a part-pay basis which will include many low-wage groups not now able to pay any part of their care. He believes this will reduce the load on public hospitals and strengthen the position of voluntary hospitals as charitable institutions.

Dr. A. C. Bachmeyer, director of the University of Chicago Clinics, records the great advancements made in the training of hospital administrators through university and other courses which prepare hospital executives for the complex duties which confront them today.

Maurice Dubin, executive director of Sydenham Hospital, New York, says that the hospital has broadened its concept of its task to include recognition of its social responsibility to the community, so that in addition to providing technical facilities for medical, surgical and nursing care, it is also interested in the background and future status of the patient.

DENTAL DECAY

A number of studies in the past few years have indicated that the element, fluorine, may play an important role in the problem of dental decay. Numerous surveys of school children made by the U. S. Public Health Service have demonstrated that small amounts of fluorine in the domestic water supply seemingly have a marked inhibitory effect on the production of dental decay. Bacteriological studies carried on by the Public Health Service in collaboration with the University of Michigan have shown an unusual difference in the number of *L. acidophilus* in the saliva of children dependent upon whether the domestic water used contained small amounts of fluorine or not. (Public Health Reports Vol. 56, No. 9.)

The manner in which fluorine inhibits the production of dental decay is not known.

Some think that it may be due to the higher fluorine content of the teeth of people with "mottled enamel" or "dental fluorosis." Others suggest that action of the fluorine may be purely environmental or local. Bauxite (Ark.) is a community which has occupied a prominent place in "mottled enamel" history. Until 1928, the Bauxite water supply was obtained from deep wells and contained one of the highest fluoride concentrations of any known common water supply in the United States, close to 14 parts per million. An unusually severe type of mottled enamel had developed in the community. In 1928 Bauxite changed from the high fluoride deep well supply to the fluoride free Saline River, a water that had been used by the nearby town of Benton for a number of years. Bauxite thus afforded an opportunity to study populations exposed to waters of a high fluoride concentration during the time when the teeth were forming, followed by twelve years' use of a fluorine free water.

The older Bauxite age group, all of whom had a moderate to severe type of mottled enamel and had been using a fluoride free water during the past 12 years, showed only about half the amount of decay that a comparable group at Benton (Ark.), who were free of mottled enamel, showed.

In the present survey the limited immunity from dental cavities is seemingly not dependent upon the presence of mottled enamel because children born within several years of the change in the water supply and practically free of mottled enamel likewise disclosed a lower number of decayed teeth.

The youngest age group at Bauxite—those farthest removed in time from the influence of the "old" high fluoride water—shows the highest dental caries experience in spite of the fact that they had been exposed to risk of caries for the shortest period of time.

"Teeth moderately to severely affected with mottled enamel showed no tendency to rampant dental caries even though they had been exposed to a fluorine-free water for the past twelve years," the study disclosed.

HEALTH PROGRAMS AND NATIONAL DEFENSE

"How much will health programs be modified by the immediate demands of national defense?" is the question posed by Dr. Michael Davis, Director of the Committee on Research in Medical Economics, in his forthcoming book: *America Organizes Medicine.* (Harper and Brothers, March 5, 1941).

Dr. Davis attacks the problem from many sides: medical care for workers in defense industries during the present period of preparedness; mobilization of doctors, nurses, and dentists to care for soldiers, sailors and civilians should war come; advice to housewives and the consumer on matters of nutrition should there be food restrictions under a war economy; etc. "Humanitarianism and security," he points out, "will continue as motives; but efficiency will take first place as the impelling influences toward public action. The contribution of health services to the efficiency of our population is thus of prime significance at this period."

Marshalling all the important data that have come out of a decade of extensive study of public health and medical care, this book discusses virtually every aspect of the health problem in America. It is the first book to present full analyses of the health needs of our people and the extent of facilities available to meet them—and to offer a plan for action that is both feasible and economically sound.

The author traces organization of medicine through agencies to minister medical care; methods of service; and methods of payment. He shows how organized medicine is partly a matter of education but largely a matter of action. And he analyzes out of his own experience as a government consultant the possibilities and need for federal and state health legislation.

Dr. Davis is the editor of the new quarterly, *Medical Care,* consultant on health studies to the Social Security Board, and was a founder of the Committee on the Costs of Medical Care.

KNOW YOUR TRANSIENT GUEST

Transients, variously estimated at 200,000 to 1,000,000 are "on the road" and for the most part are unable to procure the necessities of life without assistance. The general welfare of the whole country is closely linked to the health problem presented by this class of needy persons, according to a bulletin just published by the United States Public Health Service.

These "on the road" people are discriminated against in programs of material aid and public medical care through the application of residence and related requirements, Passed Assistant Surgeon Charles F. Blankenship and Fred Safier, Associate Social Science Analyst, authors of the study, state in this new bulletin. (Public Health Service Bulletin 258.)

The Public Health Service points out that "migration is an outstanding characteristic of the United States." Economic improvement is the main incentive for migration. Those who cross State borders in search of health are usually attracted to those areas which have acquired a reputation for salubrious climate.

Since it is true that almost two-thirds of the agencies giving medical care to transients restrict care to either emergency or selected cases, the difficulties facing the transient who requires public medical care are matters of serious concern.

"Transients, either interstate or intrastate, have considerably more disabling illness than persons who have resided in communities long enough and under such conditions as to have the status of residents. Intrastate transients have even higher disabling illness rates than have the interstate group. It is possible that this difference is due to the greater proportionate migration of interstate transients to cities in search of public medical care which they do not believe is available to them at home in smaller communities. Among all interstate transients the most recent migrants have the least number of disabling illnesses and as migration continues the incidence of disabling illness increases.

"However, as illness strikes more frequently, the result seems to be that further migration is delayed and often the migrant settles down in some community and eventually becomes a resident. This tendency may be responsible for the high rate of illness and disease found in cities among the local homeless, many of whom may well be former interstate transients disabled for migration by chronic or recurring diseases."

Data on medical care received by transients reflect the results of the limitations imposed on the group. No class or type of nonresidents, except special beneficiaries of the Federal health services, receives as much medical care as even the poor in resident groups. Although most students of the subject agree that care received by many residents is not adequate for the maintenance of health, the report shows that transients receive even less care than do residents.

"The influence of transients on community health can hardly be other than harmful," the co-authors stated. As a result of grossly poor living conditions, a high incidence of typhoid fever and particularly of dysentery occurs among transients. Malnutrition appears to be common, diets for children being deficient to the extent that future health may be impaired. Dangers of introducing such diseases as smallpox, meningococcus meningitis, malaria, and trachoma are multiplied by an influx of transients. The discrimination noted against diseased transients in hospitals, sanatoria, and clinics undoubtedly has an economic basis. Estimates for the cost of public hospitalization now being supplied to transients in general hospitals show that an enormous load from this cause is being carried by some communities, in spite of the fact that transients generally receive considerably less medical care and hospitalization than do residents.

Specific recommendations by the Public Health Service as to the most equitable and practical solution of the medical problems involved in caring for transients have been recommended. It is suggested that the states and Federal Government make ample provisions to provide medical care for transients which will also protect the public.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

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"STANDARDS MUST BE MAINTAINED"*

"Any measures, taken at this time to meet the need for additional nurses, should *uphold* and *strengthen* present standards of nursing education."

So voted the Nursing Council on National Defense at its meeting November 8th, 1940.

Since the last war, 25 per cent of the nursing schools in the country have been eliminated. The remaining schools have larger enrollments. Educational facilities are improving. Eighty schools of nursing are affiliated with colleges and universities. Hours for students—and for graduates, too,—have been shortened. Twenty years ago, hospitals with schools of nursing employed very few graduate staff nurses. Many thousands of graduate nurses are now so employed. The principle of assigning non-nursing duties to helpers, or subsidiary workers, has been generally accepted. Many such workers are now so employed. Students are better selected. Better experience is provided for them. Supply and demand in nursing seem to be fairly well balanced.

These gains must not be lost.

The Council recognizes that although recent graduates are better prepared, the demands upon nurses have also risen. The number of *highly qualified nurse specialists* needed in hospitals, nursing schools and public health nursing agencies is still greater than the supply. Increased industrial production will require more well-prepared industrial nurses. The Army now needs 4,000 additional nurses. A national emergency speeds up turnover. Demands for nurses are apt to increase.

When the emergency is over, however, depression is sure to follow.

The Nursing Council on National Defense recommends that *quality* be emphasized in the selection and preparation of nurses. The number of poorly prepared nurses,—nurses who cannot adjust to changing conditions,—must not be increased.

The Council recommends also:

1. That a carefully selected group of nursing schools be asked to expand their resources and that efforts be made to secure state or federal funds for this purpose.

The Council does not believe that all schools of nursing should be asked to increase their enrollments at this time, nor that hospitals which closed nursing schools during the last depression should be asked to reopen them.

2. That the services of inactive nurses be enlisted to replace those withdrawn for military and other services created by the emergency; and that assistance be given in planning refresher and special courses for them.

According to the "sampling inventory" of registered nurses in the District of Columbia, many more nurses, inactive in nursing, are in our communities than we realize.

An interesting type of refresher course for such nurses has already been started in Hartford, Connecticut. In New York, under the sponsorship of the State League, carefully planned refresher courses, from six weeks to three months in length, will be offered to registered nurses after January 1.

3. That existing educational resources be strengthened and supported in every way possible, in order to maintain and increase nursing efficiency at this time.

A small study of some fifty schools of nursing, undertaken by the National League of Nursing Education during the last few months, indicated that these schools can admit about 600 additional well-qualified students in the Spring of '41. If funds can be secured for instructors' salaries and other costs, they may be able to take in still more students.

The Nursing Council believes that enrollments in good schools could well be augmented by 4,000 carefully selected students this coming year. Much of its effort, therefore, will be directed toward securing funds for expanding some of the existing schools, and toward recruiting above-average students for these schools.

A need for well-prepared nurses exists. But in meeting that need,—Standards Must Be Maintained!

Georgia has maintained the high quality of schools of nursing, in order that effective nursing may be maintained in a national emergency. For a list of these schools write the Headquarters of the Georgia State Nurses' Association. See address above.

The Fifth District of the Georgia State Nurses' Association appointed a special committee to outline *refresher courses* for nurses. Sister Mary Anita of St. Joseph's Infirmary, Atlanta, is chairman.

*The above statements were quoted from the November, 1940, Professional Nursing Bulletin of the Nursing Information Bureau of the American Nurses' Association.

WOMAN'S AUXILIARY : OFFICERS 1940-1941

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RICHMOND COUNTY

The Woman's Auxiliary to the Richmond County Medical Society met on January 21 at the home of Mrs. Lombard Kelly in Augusta. Mesdames Jack Sherman, C. Tessier, Jr., and A. P. Bridges were joint hostesses. Mrs. Lucius Todd, president, opened the meeting with the Lord's Prayer. Eighteen members and two visitors were present.

The treasurer reported a balance on hand of $148.20 and told of having sent a check as a gift to the Richmond County Medical Society to defray expenses of a guest speaker at one of their meetings, which will be known as the Auxiliary Lecture. A check for $4.20 was sent to a dairy for milk given to a worthy tuberculosis patient in need. Mrs. L. P. Holmes, a member, requested funds to help buy a food warmer for British war sufferers, the Auxiliary voted $5 for this cause.

Mrs. C. M. Burpee reported for the committee on the Auxiliary's room in the Pediatric Ward of the University Hospital that paint for wall decorations and money for cleaning drapes were requested and also that a tray table was needed for the room. The Auxiliary voted to supply the paint and money for cleaning at once and a committee, Mrs. W. K. Philpot and Mrs. C. M. Burpee, was appointed to investigate further the matter of the table.

Mrs. Lombard Kelly reported 25 new subscriptions to Hygeia and urged all members to subscribe next year. Mrs. Ralph Chaney reported on a lay meeting she attended at which Dr. J. Harvey Butler gave a medical talk. She also read two letters for the secretary, Mrs. Akerman, who was ill. In one the society thanked the Auxiliary for the $50 gift for a lecture, inviting members to attend the lecture.

A committee composed of Mrs. Robert Greenblatt and Mrs. C. Tessier was appointed to investigate and procure a W. P. A. nurse to do follow up work for the Gynecologic Clinic at the University Hospital. A nominating committee, appointed by the president, was composed of Mrs. Ralph Chaney and Mrs. Lombard Kelly.

Mrs. Chaney, program chairman, presented Mrs. Richard Torpin, who gave an excellent paper on Jane Todd Crawford, showed pictures she had taken at the home of Dr. Ephriam McDowell. Mrs. Chaney then presented Dr. Loree Florence, of Athens, the first woman graduate of the University of Georgia School of Medicine, who read a fine paper on "Women in Medicine."

Mrs. H. G. Banister, of Ila, president of the Woman's Auxiliary to the Medical Association of Georgia, was an honor guest and urged the members to cooperate in Research in Romance of Medicine and to send exhibits to the State convention. The meeting then adjourned for tea. Mrs. Chaney presided at the tea table, which was beautifully decorated with lilies, the gift of Mrs. W. W. Battey, Jr.

CLARKE COUNTY

The Woman's Auxiliary to the Clarke County Medical Society has held two interesting meetings recently. Miss Lucile Crabtree spoke at the December meeting, held at the home of Mrs. L. L. Whitley at Crawford. Miss Crabtree stressed the fact that people in all walks of life need health education, gave some arresting statements which showed the need of health education in Athens. The meeting opened with singing of "God Bless America," after which Mrs. H. W. Birdsong gave the devotional on "Joy of Service for Others." It was voted to give a donation to the tree at St. Mary's Hospital and to collect useful articles from each home to turn over to Lyndon House. Mrs. H. G. Banister, of Ila, president of the Woman's Auxiliary to the Medical Association of Georgia, gave suggestions for the year's program. Mrs. Whitley read "Ten Commandments for a Doctor's Wife," and Miss Mary Elizabeth Smith gave piano selections. Other guests present were Mrs. A. E. Hayes and J. H. Wyatt of Crawford. Mrs. G. L. Loden and Mrs. Banister, hostesses, with Mrs. Whitley, served refreshments.

The January meeting was held at the home of Mrs. L. S. Patton in Athens. Dr. Loree Florence spoke on "Women in Medicine." Dr. Florence said the first woman graduated in medicine in 1849 in the United States. From that day women in increasing numbers have gone into the medical profession, making their lives count in that field. Mrs. L. L. Whitley,

of Crawford, first vice-president, read a Psalm and Mrs. H. W. Birdsong, president, gave a prayer. A new Constitution and By-Laws were adopted and plans were made for the meeting of the Woman's Auxiliary to the Tenth District Medical Society in Athens February 12. Reports were made that several hundred pieces of health literature were given to various schools in the county and books, magazines, clothes and other things were carried to Lyndon House. Mrs. Patton and her co-hostess, Mrs. Marion Hubert, served refreshments.

Fulton County

The Woman's Auxiliary to the Fulton County Medical Society met on February 7 at Habersham Hall in Atlanta. Mrs. Olin S. Cofer, president, presided. Dr. Howard Hailey, president of the Fulton County Medical Society, expressed appreciation of the members' work and urged their continued cooperation. General James H. Reeves, executive secretary of the Atlanta Chapter of the American Red Cross, gave some stirring thoughts on national defense, after which Mrs. Simon Smith read an excellent report of the activities of the Auxiliary's Red Cross committee.

It was announced that the executive board had chosen Mrs. Murdock Equen as president-elect to succeed Mrs. Richard Newberry, resigned. Mrs. Edgar Shanks was elected first vice-president to succeed Mrs. Equen. The following recommendations from the executive board were accepted: That in future the Auxiliary meet in the auditorium of the Crawford W. Long Nurses' Home and that the new officers of the Fulton County Medical Society be entertained at a party at Mrs. Cofer's home as near Doctors' Day, March 30, as may be convenient. Routine reports were given and Mrs. W. M. Dunn, Health Education chairman, stated that the health education meeting, to which representatives of Atlanta women's organizations interested in health will be invited, would be held on March 7 and would be a forum on "Public Health In and Around Atlanta." A letter was read from Dr. Howard Hailey, president of the Fulton County Medical Society, stating that Mrs. Cofer had been reappointed on the Advisory Committee on Public Health and Instruction. After adjournment, the membership committee, Mrs. Murdock Equen, chairman, entertained at luncheon.

National Convention

Hotel Carter will be headquarters for the annual meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Cleveland June 2-6. Requests for reservations should be sent immediately to Dr. Edward F. Kieger, chairman of the committee on Hotels and Housings, 1604 Terminal Tower Building, Cleveland, Ohio.

Habersham County

The Woman's Auxiliary to the Habersham County Medical Society met on February 13 at the home of Dr. and Mrs. O. N. Harden in Cornelia, the society meeting was held at the same time. Mrs. Emmett Ayers gave a splendid talk on work in China and the horrors of war. Other visitors were Dr. and Mrs. C. L. Ayers and Dr. Weldon of Toccoa. The Auxiliary elected the following officers for 1941: Mrs. C. M. Sharp, president; Mrs. D. H. Garrison, vice-president; Mrs. Horace Crow, secretary and Mrs. O. N. Harden, treasurer.

Health Suggestions

Mrs. W. W. Chrisman, of Macon, first vice-president and chairman of Health Education of the Woman's Auxiliary to the Medical Association of Georgia, has written to each county auxiliary urging members to plan a community meeting on nutrition between March 1 and April 15. The health program of the State Auxiliary this year is stressing nutrition, as malnutrition is one of the most serious and prevalent health problems of the State. Mrs. Chrisman suggests that the county medical society, the county health officer, public health nurse, home economics teachers, representatives of P.-T.A., home demonstration agent, farm agent, and N.Y.A. and W.P.A. adult education instructors be invited to cooperate in discussing community malnutrition problems and means of solving them. The State Department of Public Health is cooperating and will supply the following materials for distribution at the meetings, "The Rise and Fall of Pellagra," "Hot Lunches for Healthier Children," "Don't Mortgage the Future Health of Your Family" and "Buying Food for the Family."

Hygeia Contest Winner

The Woman's Auxiliary to the Baldwin County Medical Society, Mrs. C. H. Richardson, of Milledgeville, president, has received a $25 check from Hygeia, the national health magazine published by the American Medical Association, for winning second place in the recent national subscription contest. Groups from throughout the United States participated in the contest and the Georgia Auxiliary is justly proud of the record made by the Milledgeville members, who secured 77 subscriptions.Hygeia was placed in all schools in Baldwin County, the libraries, the 5 N.Y.A. homes, 3 beauty parlors and many private homes.

Ninth District

The Woman's Auxiliary to the Ninth District Medical Society will hold its semi-annual meeting in Gainesville on March 19, the district society meeting will be held at the same time. Mrs. C. J. Roper, of Jasper, is president of the Auxiliary and Mrs. Ralph Freeman, Sr., of Hoschton, is secretary-treasurer.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE RELATIONSHIP OF PUBLIC HEALTH EDUCATION TO THE PRESENT DAY PRACTICE OF MEDICINE AND PUBLIC HEALTH

The education of the public concerning health has been recognized as an important problem in our country since the days when medical practice was as rugged as our frontiers. Each generation of physicians dealt with it in the framework of its period. Even in those early days the need for disseminating health information was felt to be so pertinent that it found expression in the charter of the Massachusetts Medical Society founded in 1781. Dr. Nathan Allen delivering the "Anniversary Discourse" before this body in 1874 said:

"One of the primary objects in the organization of this Society was to promote the health of the community, to prevent disease and diffuse medical knowledge."

Dr. John Stearns, when inducted as first president of the New York Academy of Medicine, Feb. 3, 1846, stated:

"What then does our duty to the profession and the public require?—to elevate the standard of medical education, to exclude from our profession all ignorant pretenders, *to enlighten the public mind on the subject of medicine and its collateral branches of science*—appear to constitute the important topics for our future consideration."

Nearer to our own day, Dr. Andrew H. Smith in an address before the New York Academy of Medicine, Nov. 6, 1902, said:

"The world has a right to know, and it is our duty to tell, just what progress we are making day by day, the steps by which results are obtained, the difficulties we meet with, the uncertainties which are still to be cleared up, the problems which are pressing for solution."

Recognizing that this program has not been carried out he continues:

"This, I believe, is the explanation of the failure of scientific medicine to obtain that hold upon popular recognition and respect which it obviously deserves, while the most impudent and absurd parodies upon it are eagerly accepted by a public which is credulous in this respect only because in this respect it is ignorant."

There is ample warrant then for the statement that public health education has, for a long time, been considered an important adjunct to medical practice in our country. However, it is not until comparatively recent times that any systematic efforts have been made to educate the public in health matters.

Health education is a vital and an integral part of the *present day* practice of medicine and public health. Its functions may be briefly described as follows:

(1) Per necessity each man is his own first diagnostician. He almost invariably forms an opinion as to the gravity of his ailment. Upon the individual, therefore, first rests the responsibility of deciding the need for medical assistance. On what then is this judgment based? On the sum total of his general experiences and knowledge on matters pertaining to illness. These are palpably most inadequate.

(2) Health education is necessary in order to inform the public on what medicine has to offer for the conservation and preservation of health and how effective these services can be.

(3) Health education is essential in supplying information relative to *where* these services are available in order that they may be effectively utilized.

(4) Health education can teach the public to know something of the methods by which scientific achievements are attained—the ideals of its workers, the labor, step by step, check and recheck, with attention to the smallest details, that are the prerequisites to all scientific advances—that there is no short cut or royal road to scientific discovery. The appreciation of those facts will yield a respect for science, research, and medicine and at least a minimal ability to discriminate between authentic medical and pseudo-medical appeals for cooperation and action.

(5) Health education is the most effective means of presenting the principles of preventive medicine. The public needs not only to be aroused to the importance of and reasons for the practice of good hy-

giene, physical and mental, but such an interest in these things needs to be awakened as will lead to the cultivation and adoption of those health habits essential to maintaining and improving their health and well-being.

What also needs to be made clear is the relationship of medicine to preventive medicine. Quite simply, to show that while physicians, clinics and hospitals are essential in times of illness, the *prevention* of illness, the maintenance and improvement of health and well-being are dependent upon the public's application of the principles of preventive medicine and the use of all available medical services in cooperation with the physician. Under such a plan, our physicians, dentists, druggists, clinics, and health services would be much more efficiently and effectively used. This would have a profound effect on the whole problem of the cost of medical care. When the knowledge of preventive medicine and the early detection of disease become an integral part of the general information of the public, physicians will be consulted much more frequently for earlier and comparatively inexpensive care. Easing the burden of medical costs will be reflected in a lessening of the pressure for public provision, on a compulsory insurance basis, of diagnostic and therapeutic facilities and services.

(6) Health education can increase the effectiveness of the present day practice of medicine by supplying information to the public on the ways and means of giving intelligent care to the sick. The majority of sick persons would find immeasurable relief and comfort if members of their families understood the principles involved in the care of the sick and could intelligently follow orders left by the physician.

(7) Health education is necessary in order to convert into a usable form the vast amount of scientific knowledge that has accumulated in the field of nutrition.

This knowledge, in the hands of the public, is a powerful influence, the importance of which would be difficult to overestimate. A well-organized nutrition program would be reflected in the increased effectiveness of our medical services—curative and preventive—would reduce the days of incapacity resulting from disease and give the body an opportunity to realize to the full its potentialities of growth, development, and well-being. Health education can point out the advantages of incorporating scientific knowledge in the pattern and practice of every day living.

(8) Health education can do much to bring about an intelligent public appreciation of the physician's role in the community both as a man and a doctor; to present him in the framework of his training, his work and his problems.

That there are medical ramparts which have as yet not been successfully assailed is well known to laymen. What is not appreciated, as it should be, is that there are many diseases which are not clearly understood by the physician—many diseases in which there is warranted difference of opinion, both as to the cause and the treatment—that medicine labors diligently in the solution of these problems. Failure to understand the problems of the physician is reflected in a lack of confidence and often hostility that in no small way contribute to the changing attitude of at least a part of the public regarding the present day practice of medicine.

(9) It is quite evident that the emphasis of health education in our public health program will be changed over the years. Success in the control and the prevention of disease, particularly of the communicable diseases, will allow more attention to be directed to the host of chronic and debilitating diseases which incapacitate adults during the most productive years of their lives. The transition phase which is clearly under way at the present time demands, more than ever, a well informed public and requires even closer cooperation with the physician than did those programs of public health concerned primarily with sanitation.

These new phases will need to be interpreted to the laymen if we are to have his intelligent support in framing and carrying out such programs as are found desirable.

In a democracy such as ours, medical and health programs, both public and pri-

vate, succeed in proportion to the creation of public opinion that will support these activities. Social, financial and legislative support of the public is essential also for the continuation of our institutions, public and private. A well informed public is our most sure guarantee of the continued freedom and independent thought necessary for the progress and pursuit of research and the unhampered practice of medicine.

Inasmuch as public support is necessary, and intelligent judgment is desired, it seems advisable that the many facets of medical problems be made clear to all and the science of our age be made an integral part of their general information.

Health education is, therefore, of vital importance and inseparable from the efficient and effective practice of present day medicine.

ROBERT V. SCHULTZ, M.D.,
Director, Division of Health Education.

NEWS ITEMS

THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL, New York City, announces a special lecture by Dr. Russell L. Cecil, Professor of Internal Medicine, Wednesday, March 26 at 2:30 P.M., on the *Present Status of the Theory of Focal Infection.* Dr. Walter C. Alvarez of the Mayo Clinic will deliver a lecture on Friday, April 18 at 2:30 P.M. on *Puzzling Types of Abdominal Pain.* Dr. Ralph Moore Tovell, Hartford Hospital, Hartford, Conn., will deliver a lecture on Friday, May 2 at 5:30 P.M., on *Regional Anesthesia.*

DR. CHARLES C. HARROLD, Macon, was a guest speaker at the Cochran Rotary Club, February 11. He spoke on *Early Paths and Trails.* Dr. Harrold has a collection of about 200 maps of early trails which were started by buffaloes, deer and other wild animals, then used by the Indians and now used as highways by the white people.

DR R. H. MCDONALD, Newnan, has been appointed local senior surgeon for the A.&W.P.R.R. Dr. G. W. Hammond, Newnan, has been appointed local junior surgeon.

DR. R. A. BARTHOLOMEW, Atlanta, has been elected president of the South Atlantic Association of Obstetricians and Gynecologists. The next annual meeting will be held in Atlanta.

THE FULTON COUNTY MEDICAL SOCIETY, Atlanta, sponsored a number of lectures during March on the following subjects: March 5, *Ovarian Tumor with Endocrine Dysfunction,* by Dr. Howard Thomas Karsner, Cleveland, Ohio; March 6, *Report of Case—Hypertensive Heart,* by Dr. Byron J. Hoffman, Emory University; *Hypertension,* Dr. Karsner; March 7, *Paget's Disease of the Nipple,* Dr. Karsner; March 20, *Report of Cases with Tachycardia, Showing Identical Clinical Pictures,* by Dr. Jeff L. Richardson, Atlanta; *Vitamin K,* by Dr. William Riser, Jr.; *Carcinoma of Left Colon,* by Dr. Geo. Eubanks, Atlanta.

THE FOURTH DISTRICT MEDICAL SOCIETY met at the Griffin Hotel, Griffin, March 11. Dr. W. H. Clarke, LaGrange, president, presided. Dr. C. B. Upshaw, Atlanta, read a paper entitled, *Toxemias of Pregnancy;* Dr. H. C. Sauls, Atlanta, *Present Day Treatment of Pneumonia;* Dr. C. M. Burpee, Augusta, *Bronchiectasis in Children; Address,* Dr. Allen H. Bunce, Atlanta, and Dr. J. C. Patterson, Cuthbert, president-elect and president of the Medical Association of Georgia, respectively.

THE RANDOLPH-TERRELL COUNTIES MEDICAL SOCIETY met at the Patterson Hospital, Cuthbert, March 7. Dr. T. Schley Gatewood, Americus, read a paper entitled, *The Induction of Labor by Bougie.*

THE BIBB COUNTY MEDICAL SOCIETY met at Ridley Hall, Macon, March 4. Dr. J. Allen Smith read a paper entitled, *Acute Laryngotracheobronchitis.*

THE STAFF MEETING of Emory University Hospital, Emory University, was held on March 3. Dr. Earl Floyd, Dr. J. L. Pittman and Dr. R. S. Leadingham reported a case of *Hypogonadism;* Dr. Wm. G. Simmons and Dr. A. J. Morrill, case of *Familial Tolangoctasia;* Dr. Stewart R. Roberts reported two cases, *Sulfathiazole in Endocarditis* and *Silent and Advanced Syphilis.*

DR. HAROLD P. MCDONALD, Atlanta, was elected secretary-treasurer of the Southeastern Branch of the American Urological Association at Jacksonville, Florida, February 22.

COUNTIES REPORTING FOR 1941

Troup County Medical Society

The Troup County Medical Society announces the following officers for 1941:

President—E. T. Arnold, Jr., Hogansville
Vice President—E. R. Park, LaGrange
Secretary-Treasurer—H. H. Hammett, LaGrange
Delegate—W. P. Phillips, LaGrange

Taylor County Medical Society

The Taylor County Medical Society announces the following officers for 1941:

President—Frank Sams, Reynolds
Vice President—Lewis Beason, Butler
Secretary-Treasurer—R. C. Montgomery, Butler
Delegate—S. H. Bryan, Reynolds
Alternate Delegate—E. Faxton Seay, Butler

Coffee County Medical Society

The Coffee County Medical Society announces the following officers for 1941:

President—H. J. Goodwin, Douglas.
Vice President—J. W. Wallace, Douglas
Secretary-Treasurer—I. E. Simmons, Douglas
Delegate—J. W. Wallace, Douglas
Alternate Delegate—T. H. Clark, Douglas

Emanuel County Medical Society

The Emanuel County Medical Society announces the following officers for 1941:

President—R. C. Franklin, Swainsboro
Vice President—R. G. Brown, Graymont
Secretary-Treasurer—E. C. Powell, Swainsboro
Delegate—R. C. Franklin, Swainsboro
Alternate Delegate—D. D. Smith, Swainsboro

Burke County Medical Society

The Burke County Medical Society announces the following officers for 1941:

President—H. F. Bent, Midville
Vice President—W. C. McCarver, Vidette
Secretary-Treasurer—W. D. Lundquist, Waynesboro
Delegate—J. M. Byne, Jr., Waynesboro
Alternate Delegate—W. R. Lowe, Midville

Whitfield County Medical Society

The Whitfield County Medical Society announces the following officers for 1941:

President—Trammell Starr, Dalton
Vice President—Chas. F. Engelking, Dalton
Secretary-Treasurer—H. J. Ault, Dalton
Delegate—D. Lloyd Wood, Dalton
Alternate Delegate—E. O. Shellhorse, Dalton

Ocmalgee Medical Society
(Bleckley-Dodge-Pulaski Counties)

The Ocmulgee Medical Society announces the following officers for 1941:

President—W. A. Coleman, Eastman
Vice President—A. S. Batts, Hawkinsville
Secretary-Treasurer—I. J. Parkerson, Eastman
Delegate—J. M. Smith, Cochran
Alternate Delegate—W. A. Coleman, Eastman

OBITUARY

Dr. Emmett Bernard Anderson, Americus; Emory University School of Medicine, Emory University, 1916; aged 49; died on February 21, 1941 of heart disease. He was a native of Florida. After he served as an intern at Grady Hospital, Atlanta, he enlisted in the Medical Corps of the United States Army and was a research worker at the Rockefeller Institute, New York City. Later he returned to Atlanta and practiced urology. In 1922 he moved to Americus and was associated in practice with Dr. Herschel Smith; later helped to organize the Wise, Smith and Anderson Clinic. Dr. Anderson was a leader in the practice of medicine, took an active interest in civic and religious affairs. Dr. Anderson was a past president of the Americus Rotary Club and steward in the First Methodist church. Surviving him are his widow; his parents Mr. and Mrs. W. H. Anderson, Williston, Fla.; two brothers, W. H. Anderson, Jr., Williston, Fla., and J. P. Anderson, Fort Myers, Fla.; four sisters, Mrs. Angus Smith, Mrs. V. E. Whitehurst and Mrs. Charles Phinney, all of Williston, Fla.; and Mrs. E. J. Raich, Quincy, Ill. Rev. Mark Anthony officiated at the funeral services conducted at the home. Burial was in Talbotton cemetery.

Dr. James Jernigan Crambley, Sylvester; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1914; aged 54; died at a government hospital on February 17, 1941. He was widely known and had an extensive practice in Worth and adjoining counties. Dr. Crumbley was an excellent physician and one of the State's best citizens. Surviving him are his widow; two sons, J. J. Crumbley, Jr., student at the University of Georgia, and Ben Hill Crumbley, student at G.M.A.; one brother, Dr. J. T. Crumbley, Colquitt; two sisters, Mrs. W. A. Davis, Leesburg, and Mrs. J. W. Castellow, Georgetown. Rev. L. E. Baskin officiated at the funeral services conducted at the Sylvester Baptist church. Interment was in the Sylvester cemetery.

Dr. James Knox Hall, Lyons; member; Atlanta School of Medicine, Atlanta, 1908; aged 63; died on February 25, 1941 at his home of heart disease. He was looked upon as a professional and civic leader in his community. Dr. Hall began practice at Cedar Crossing and in a few years moved to Lyons. He was recently appointed a Lt. Col. on Governor Talmadge's staff. Dr. Hall was an active member of the Toombs County Medical Society and the Methodist church. Surviving him are his widow, one daughter, Miss Rebecca Hall, Lyons, and an adopted son, Bill Hall, a student at Gordon Institute, Barnesville. Rev. M. A. Shaw and Rev. J. D. Rabun officiated at the funeral services conducted at the Methodist church. Burial was in the Lyons cemetery.

WARRIORS AGAINST DISEASE

American medicine, as an authority recently observed, has a weak spot. It is not a weakness affecting the patient—the sick man or woman anxiously seeking a return to health. Curiously enough, this weakness has helped the patient—for the weakness lies in the fact that the medical profession has been so busy fighting disease in experimental laboratories as well as at the bedsides of the ill, that it has found little time to tell the public of its tremendous achievements.

The undeniable record is there for all who wish to read it. And it tells through the figures, a dramatic and inspirational story of an endless battle against disease and suffering and death.

That battle has won victory after victory. In the period of a century and a half, in this country, the life expectancy of man has nearly doubled—from 35 to 62

years. During that time, typhus, once one of the greatest killers, has all but disappeared. Smallpox and diphtheria, dreaded specters not so long ago, have been robbed of their terrors. Other great scourges—typhoid, diabetes, tuberculosis—have been brought under control, and their mortality rates steadily reduced.

That is what American medicine—private medicine—has done. And all over the land, in countless laboratories and institutes, privately financed and managed for the most part, the doctors and the scientists are fighting, day and night, the scourges which have not yet been conquered.

Medicine is not an industry. But, like industry, it has rendered its greatest service to the people under a system which places no brakes upon the achievements of the individual, and which encourages any man, in any field, to develop his talents to the utmost.

—The Middletown Transcript, Middletown, Del., Jan. 9, 1941.

MATERIAL FOR SPEAKERS BEFORE LAY AUDIENCES

The Bureau of Health Education of the American Medical Association offers to local physicians the loan of prepared material for speakers addressing lay audiences. Even though a physician may be an able speaker, he frequently hesitates to accept invitations to speak before lay audiences because time is required to prepare material in suitable language for such audiences.

It is here that the *Hygeia* Clipping Collection loan service is of value. These collections consist of *Hygeia* material. They are patterned after the American Medical Association's Package Library. The advantage of this material is that it is written in non-technical language that the layman can understand. Thus, the physician is saved the effort of translating technical material into language easily understood by non-medical groups.

There are collections available on 82 topics; accompanying most collections is a speaker's outline. This outline is not intended as a fixed pattern which the speaker must follow but is merely offered as one way in which the material may be presented. As the physician reads the clippings, he may make his own notes on the outline and use only that portion of the material appropriate to his community.

The collections may be borrowed for a 10 day period and the only charge to the physician is the return postage for the bound material. Collections should be ordered at least two weeks in advance, and first, second, and third choice should be indicated since collections are not always available.

The demand for this material has grown tremendously the past several years. Several state medical societies, as well as a few county medical societies have found it to their advantage to develop speakers bureau library services of their own. In spite of the great demand for this material and the amount of publicity it has received, there are still a number of physicians who are not acquainted with the material offered by the Bureau. The practicing physician is not always a polished platform orator and welcomes aid of this type.

Loan Collections of Hygeia Material

Anesthesia	330.1
Anemia	92.1
Appendicitis and Laxatives	177.0
Athletics and Exercise	318.1
Blood Transfusions	131.0
Cancer	61.0
Child—Health of the Pre-School	401.2
Child—Health of the School	401.1
Child's Health and His Future Career, The	291.0
Colds	151.4
Constipation and Cathartics	184.1
Communicable Diseases	47.1
Crippled Children	225.0
Deafness	121.1
Diabetes	74.1
Diet—Watch Your	302.4
Diseases—Nine Most Deadly	292.0
Doctors—City and Country	322.1
Eyes—Adult's	120.1
Eyes—Children's	120.2
Family Medicine Chest, The	327.1
Feeding of Children	302.6
First Aid	349.0
Food—Drug and Cosmetic Racketeers	328.0
Food—Protection of	302.7
Gallbladder	180.1
Goiter and Other Glands	81.1
Growing Old Gracefully	261.1
Hair and Nails	236.0
Hay Fever—Allergy—Idiosyncrasy	305.1
Health Examinations	319.1
Health Examinations of Children	319.2
Health Living—Ten Points in	402.0
Heart Disease	150.1
Heredity and Eugenics	312.0
Hospitals	342.0
Industrial Health	348.1
Infant Hygiene	251.0
Infantile Paralysis	16.0
Kidneys	194.1
Leprosy	33.1
Maternal Hygiene	211.0
Mates or Mismates—Marriage	426.0
Medical Advances, Outstanding	338.1
Medical Preparedness	347.0
Menstruation and the Menopause	208.0
Mental Hygiene—Adult	122.1
Mental Hygiene—Child	124.2
Milk	337.1
Narcotics	105.0
Nursing	343.0
Obesity	73.1
Physical Education	318.3
Physical Therapy, X-Ray, Radium	335.0
Pioneers of Medicine	338.2
Play, Leisure and Recreation	320.1
Pneumonia	154.1
Posture	228.1
Progress in Preventive Medicine	338.0

Public Health 332.0
Ringworm 233.1
Rheumatism 72.1
Safety 288.0
Sex Education 422.0
Skin 238.0
Superstitions 333.1
Surgery 310.0
Syphilis and Gonorrhea 34.1
Training for Athletics and Health 318.2
Teeth 172.2
Teeth—Children's 172.3
Tobacco and Alcohol 101.4
Tonsils and Adenoids 171.0
Tuberculosis 23.1
Tuberculosis in Childhood 23.2
Vacations 320.2
Ventilation 316.1
Youth 124.3

BOOK REVIEW

Holt's Diseases of Infancy and Childhood revised by L. Emmett Holt, Jr., M.D., Associate Professor of Pediatrics, Johns Hopkins University and Associate Pediatrician to the Harriet Lane Home, Johns Hopkins Hospital, Baltimore; and Rustin McIntosh, M.D., Carpentier Professor of Pediatrics, Columbia University, and Director of the Pediatric Service in the Babies' Hospital, New York City. Eleventh edition. D. Appleton-Century Company, Inc., Publishers, 1940.

The late Dr. L. Emmett Holt was recognized during his lifetime as one of the most outstanding pediatrists of all time. His wide range of knowledge in his chosen field was clearly outlined and elaborated upon in his first textbook published in 1897. Since that time this book has been used almost universally as a medical school textbook as well as reference for pediatrists and medical men alike. During the years many new editions have been printed and all of them have given new discoveries in the science of medicine, as related to pediatrics, a very prominent position.

After the death of Dr. Holt, his son Dr. L. Emmett Holt, Jr., in collaboration with Dr. Rustin McIntosh, has revised and edited this hook every three to five years. The hook is still used widely in the universities of this country as a pediatric text and reference work.

During the past two decades a marked degree of specialization has developed within the field of pediatrics and this fact has led to the multiple authorship of textbooks. This idea has some drawbacks, however, and Drs. Holt and McIntosh conceived the idea of inviting the collaboration of individuals with special knowledge on one or another subject in compiling this book.

Many changes have been made in this edition. Practically every subject has been revised or re-edited and many parts have been rewritten entirely. An entirely new section on diseases of the eye has been added, and many new subjects such as lymphosarcoma, petrositis, erythroblastosis fetalis, myasthenia gravis, adrenal insufficiency and many others, have been discussed thoroughly.

Many new charts have been included in this text, charts that in the light of new findings are very valuable in changing old ideas in regard to growth and development and other important pediatric problems. Many new illustrations and prints have been incorporated which add to the general value of this book as a fine reference and text.

Drs. Holt and McIntosh, with the aid of their collaborators, have kept the original aim and purpose of the book in mind, this aim being to furnish a guide to practical therapy in pediatrics based on a complete understanding of the nature of disease.

Don F. Cathcart, M.D.

IN TOCOPHEREX SQUIBB SUPPLIES VITAMIN E IN CONCENTRATED, STABLE, ECONOMICAL FORM

Three minim capsules, presenting vitamin E in concentrated, stable, economical form, are offered by E. R. Squibb & Sons, New York, in Tocopherex. A distillate of vegetable oils containing alpha, beta and gamma tocopherols, Tocopherex was the first concentrate of natural mixed tocopherols to be made available to American physicians and at prices which make effective therapy possible without undue financial outlay by the patient. The vitamin E activity of this mixture of tocopherols is equivalent to 24 mg. of alpha-tocopherol per capsule.

While there is no established therapeutic indication for vitamin E, experimental use indicates possible value in habitual and threatened abortion and in certain muscular dystrophies which may or may not include amyotrophic lateral sclerosis, progressive muscular dystrophy and muscular atrophy.

In the management of habitual abortion due to vitamin E deficiency, it is suggested that one to three capsules Tocopherex daily be used, continued through eight and one-half calendar months of pregnancy. For threatened abortion, six capsules within 24 hours is suggested, possibly continued for one or two weeks—with a return thereafter to the maintenance dosage.

For experimental use in muscular dystrophies, a dosage of three capsules two times daily is suggested, combined with generous amounts of a vitamin B complex concentrate.

Tocopherex has been used extensively clinically and has not produced any untoward effects when taken orally.

Tocopherex (Squibb Natural Mixed Tocopherols in Oil) is supplied in capsules containing the equivalent of 40 milligrams of mixed tocopherols (alpha, beta and gamma), packaged in bottles of 25 and 100 capsules.

SQUIBB OFFERS WATER-SOLUBLE VITAMINS IN SINGLE WAFER

Deficiencies of the vitamin B complex and vitamin C (the water-soluble vitamins), it is now believed, are commonly associated, and it is for that reason E. R. Squibb & Sons, New York, developed Vitamin B Complex Wafers with Vitamin C, which they recently placed on the market. Each of these wafers, which have a malted milk flavor and are very palatable, contains

2 gm. of high potency brewers' yeast especially cultured for use as a source of the whole natural vitamin B complex, and 7.5 mg. crystalline ascorbic acid. Each wafer has the vitamin activity of:

100 U.S.P. XI (Int.) units of thiamine (vitamin B_1)

150 micrograms riboflavin (vitamin G; B_2)

130 micrograms (approx.) pyridoxine (vitamin B_6)

800 micrograms (approx.) pantothenic acid (a filtrate factor)

150 U.S.P. XI (Int.) units (7.5 mg.) ascorbic acid (vitamin C)

Also contains: 1.1 gm. protein; 1.6 carbohydrate; 0.1 gm. fat; 0.1 gm. mineral (ash).

Intended principally for prophylactic use, Squibb Vitamin B Complex Wafers with Vitamin C are of particular value where acceptability is an important factor. They are used as a diet supplement in the prevention or treatment of deficiencies in the water-soluble Vitamin B complex and Vitamin C. Three or more are taken daily as the physician prescribes.

Squibb Vitamin B Complex Wafers with Vitamin C are supplied in bottles of 50 and 100 wafers.

SQUIBB MARKETS CALCIUM PANTOTHENATE

Pure synthetic calcium pantothenate, the calcium salt of pantothenic acid, one of the filtrate factors of the Vitamin B complex, has been made available to physicians treating B complex deficiencies by E. R. Squibb & Sons, New York. It is supplied in two forms: in miniature capsules of 10 mg., package; in bottles of 50, for oral use, and as an aqueous solution of 50 mg. per cc., in 5 cc. rubber diaphragm capped vials, for parenteral administration.

The use of pantothenic acid is still in the experimental stage and Squibb emphasizes that Calcium Pantothenate is to be used only by or on the prescription of a physician. Some workers have shown, however, that the pantothenic acid content of the blood of persons having severe deficiency diseases, such as pellagra, beriberi and riboflavin deficiency, is from 23 to 50 per cent lower than in normal persons and that with a rise in the pantothenic acid content there is a simultaneous increase in the riboflavin content of the blood.

BRIEF HISTORICAL NOTES ON MEAD'S CEREAL AND PABLUM

Hand in hand with pediatric progress, the introduction of Mead's Cereal in 1930 marked a new concept in the function of cereals in the child's dietary. For 150 years before that, since the days of "pap" and "panada," there had been no noteworthy improvement in the nutritive quality of cereals for infant feeding. Cereals were fed principally for their carbohydrate content.

The formula of Mead's Cereal was designed to supplement the baby's diet in minerals and vitamins, especially iron and B_1. How well it has succeeded in these functions may be seen from two examples:

(1) As little as one-sixth ounce of Mead's Cereal supplies over half of the iron and more than one-fifth of the vitamin B_1 minimum requirements of the 3-months-old bottle-fed baby. (2) One-half ounce of Mead's Cereal furnishes all of the iron and two-thirds of the vitamin B_1 minimum requirements of the 6-months-old breast-fed baby.

That the medical profession has recognized the importance of this contribution is indicated by the fact that cereal is now included in the baby's diet as early as the third or fourth month instead of at the sixth to twelfth month as was the custom only a decade or two ago.

In 1933 Mead Johnson & Company went a step further, improving the Mead's Cereal mixture by a special process of cooking, which rendered it easily tolerated by the infant and at the same time did away with the need for prolonged cereal cooking in the home. The result is Pablum, an original product which offers all of the nutritional qualities of Mead's Cereal, plus the convenience of thorough scientific cooking.

During the last ten years, these products have been used in a great deal of clinical investigation on various aspects of nutrition, which have been reported in the scientific literature.

Many physicians recognize the pioneer efforts on the part of Mead Johnson & Company by specifying Mead's Cereal and Pablum.

NOTICE

Regional II meeting of the American Academy of Pediatrics, at Richmond, Virginia, April the 24th and 25th, 1941.

10:00 A.M.—April 24th, Round Table Discussion: *Mental Health of the Child as Related to National Defense.*

2:00 P.M.—Round Table Discussion: *Nutrition of the Child as Related to National Defense.*

9:00 A.M.—April 25th. *Food Contamination and Poisons.*

10:00 A.M.—Round Table Discussion: *Communicable Diseases and Their Relations to the Child During National Defense.*

POST-GRADUATE MEDICAL EDUCATION

The Committee on Post-Graduate Medical Education of the Medical Association of Georgia has arranged for a post-graduate seminar to be held in Waycross the week of April 7.

Dr. William B. Porter, Professor of Medicine of the Medical College of Virginia, Richmond, Virginia, and Dr. Edwin Partridge Lehman, Professor of Surgery of the University of Virginia, Department of Medicine, Charlottesville, Virginia, have accepted invitations to conduct the seminar, during which the meeting of the District Medical Society will also be held in Waycross.

Plans for a seminar in Albany, beginning the week of April 21, have not been definitely concluded but are under way.

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6. 20 calories per ounce.

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*S.M.A., a trade mark of S.M.A. Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and physical properties.

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AMERICAN MEDICAL ASSOCIATION WILL PUBLISH A NEW PERIODICAL

"War Medicine" Will Be Started in January as Part of Association's Preparedness Contribution, A. M. A. Journal Says

"Beginning in January, the American Medical Association will publish a new periodical: *'War Medicine,'* as a part of its contribution to the preparedness program," *The Journal* of the Association announces in its Dec. 14 issue.

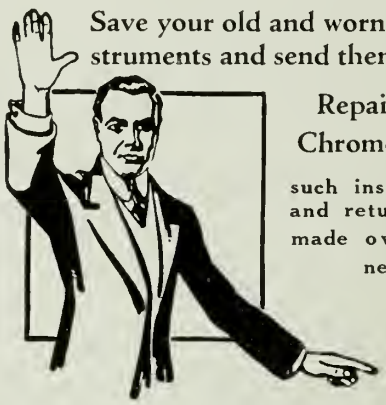
"The editorial board of the publication will be the Committee on nformation of the Division of Medical Sciences of the National Research Council. This committee includes Dr. Morris Fishbein, Editor of *The Journal*, as chairman, and the following associate editors: Mr. J. R. Bloomfield and Drs. John F. Fulton, Richard M. Hewitt, Ira V. Hiscock, Sanford V. Larkey and Robert N. Nye. In order to have direct cooperation with the governmental services, the following representatives of the Army and Navy Medical Corps and the United States Public Health Service have been chosen to cooperate with this editorial voard: Col. C. C. Hillman, Com. Charles S. Stephenson and Dr. R. R. Spencer.

"The Division of Medical Sciences of the National Research Council has developed a number of scientific committees which are actively at work preparing reports of various phases of medical service under military conditions. These official documents will be available to the new periodical for prompt publication. Already reports on chemotherapy (chemical treatment), the standardization of the treatment of pneumonia, numerous problems concerned with medicine in aviation, peripheral nerve (other than the spine and brain) injuries, wound treatment, gas gangrene and similar subjects are being made available.

"The American Medical Association, through its Committee on Medical Preparedness, is concerning itself with all the questions of personnel for preparedness and for military service. The official reports of this committee will also appear in the new periodical as well as special considerations that are given to economic and social problems of the medical profession in relationship to the emergency. Of especial importance also are the reports of official committees of the American Medical Association, such as the Council on Medical Education and Hospitals, the Council on Industrial Health and similar groups which will also be concerned with these problems.

"Finally, much material is being developed by the Coordinating Committee on Medicine and Health of the Council on National Defense and by many other governmental agencies which are considering the national nutrition, the provision of hospital services and similar questions closely related to preparedness and defense.

"The new publication will appear as a bimonthly. The Board of Trustees of the American Medical Association, which has authorized its publication, has established a price of $5 annually for the subscription. The periodical should be useful to the government services, which have indicated their wish to subscribe."



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MEDICAL HISTORY OF MACON

CARL L. ANDERSON, M.D.
Macon

The early history of medicine in Macon is a record of the activities of one man, Dr. Edward Ambrose Baber. He was born in Buckingham County Virginia, on Sept. 12, 1793. He was frail of body but very active and dynamic. On account of a wound at the Battle of Bladensburg, during the War of 1812, he was forced to seek a milder climate. He came to Georgia and settled in Dublin, then a town named Hartsford, now extinct.

Very soon after he had established himself here General Jackson had planned an invasion of the Spanish territory in Florida and requested him to join his staff as chief surgeon. After the Seminole campaign he returned to Hartsford and resumed his practice of medicine. In a year or two he moved to a town in Twiggs County called Marion.

At that time a group of men were planning to lay out a new town on the Ocmulgee River to be called Macon. On account of Dr. Baber's unusual intellect and judgment as a physician, Mr. Oliver Hillhouse Prince sought his advice as to whether or not this locality would be healthy for the settlers. He was very firm in his opinion that the town should not be located too near the river and for health's sake should be built as far away from the swamps as possible.

He believed that Macon had a great future and almost immediately moved here to make this his home. For a time he retained an office in Marion. He predicted that in twenty years the city would be "moving over the hills and far away." He had reference to Vineville and it was in this direction that the city grew.

Dr. Baber's interests and activities were varied and numerous:

In 1823 he founded the Masonic Lodge No. 32. This was the first society of any kind formed in Macon.

In 1824 an Academy was built in Academy Vineyard, now Academy Street. He was the first trustee of the school.

In 1825 the first bank in Macon was organized and Dr. Baber was its first president. This bank was built on Walnut Street which at this time was "the" street in Macon.

Dr. Baber believed that it was important, even necessary, that this community build a church. He took the first steps that brought the founding of Christ Episcopal Church, the first church in Macon.

In 1827 he became interested in politics and planned Macon's first court house. At this same time he was building a home on Walnut Street, the present site of the Clinic Hospital, to which to bring his bride. Here he planted the first English ivy and Japanese magnolia. One of the magnolia trees is still living.

In 1829, after talking with friends in the North, he conceived the idea of a railroad connecting "Macon with the sea" (Savannah). For this he was known as the "father of the Central Railroad of Georgia."

On Oct. 31, 1831, he organized the first company of the Macon Huzzars and was commissioned its first captain.

He became more deeply interested in politics and ran for the State Legislature. He was elected and introduced a bill authorizing the Governor to appoint "three suitable persons to form a system of academic and free school education throughout the State." He was thus the first man to set in motion the first effort to establish free schools in Georgia.

On June 16, 1829, Dr. Baber married Miss Mary Sweet. She had been pronounced

EDWARD AMBROSE BABER, M.D.
(1793-1846)

in the last stages of tuberculosis, but he believed that he could cure her. His methods were regarded by his professional contemporaries as "far fetched, foolish, unwise and dangerous." He instituted for her a regime consisting of a generous diet, plenty of rest, plenty of fresh air and life out in the open. She was cured and outlived him by forty-eight years. She often said, "He married me only to turn me out-of-doors."

On Sunday, March 8, 1846, Dr. Baber had a tragic death at the age of forty-nine, called "Macon's Dark Sunday" by Dr. Custis B. Nottingham in his medical memoirs. A patient had refused to take a prescription because the druggist filling the prescription said that the dose was dangerously large. Dr. Baber went to the patient's home and took the prescription to prove that it was harmless. In a few minutes he was dead. The medicine was potassium cyanide compounded by Majendie's recipe as published under the sanction of the Medical College of Philadelphia in the seventh edition of Ellis' Formulary. The prescription contained a typographical error. The government recalled this edition as soon as possible and had it burned. Had he lived Dr. Baber would certainly have been active and helpful in the organization of the Medical Association of Georgia in Macon in 1849.

The earliest records of the Macon Medical Society are lost and the date of its organization cannot be determined. However, we know from sources other than the minutes of the Society there existed an active membership nearly one hundred years ago. When the State Medical Association was organized in 1849 Macon furnished fifteen members of that body. From that time until the present the local society has met regularly once a month for some years and for many years has had two meetings a month. The membership has increased over the years and at the present time the enrollment is seventy-nine active and four honorary members.

The Macon society has always been active and alert to keep abreast of medical progress. Members are assigned subjects months ahead and the papers are usually well prepared. Cards are mailed two days before the meeting announcing the subject and the name of the essayist. As a result the discussions are lively and general. Also outstanding men from other sections appear before the Society from time to time. There is a real effort to keep the members well informed. It has also furnished many officers of the State Association and representatives to the national association.

Macon has the distinction of furnishing the meeting place for the organization of the Georgia State Association. The call for this meeting reads: "In pursuance of a call from the Medical College of the State of Georgia and the Georgia Medical Society, of Savannah, addressed to the practitioners of medicine through the State, that they assemble in convention, in the city of Macon, on Tuesday the 20th of March, 1849." Physicians from over the State responded to the call. By a motion of Dr. E. L. Strohecker, of Macon, Dr. Thomas Hoxey was called to the chair and the convention was temporarily organized. It was resolved "That the convention now resolve itself into the Medical Society of Georgia." Dr. Lewis D. Ford of Augusta was elected president. The members registering from Bibb County were: Drs. M. A. Franklin, E. T. Quintard, James M. Green, E. L. Strohecker, H. K. Green, C. B. Not-

CAT.

tingham, Charles Thompson, J. B. Wiley, R. McGoldrick, Joseph LeConte, J. C. Gilbert, W. G. Little, J. R. Boon, Thomas R. Lamar and J. W. Benson. Dr. James M. Green, of Macon, was probably the most active man at this session. He was largely responsible for the writing and adoption of the Constitution and By-Laws and was elected secretary.

At the close of the convention Macon was selected for the 1850 meeting. This meeting was called the first session of the Medical Society of Georgia.

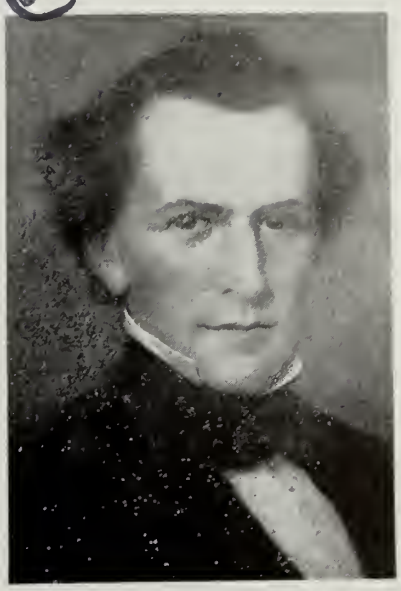
Many years passed before plans were made for a hospital in Macon. On Feb. 1, 1894 a number of citizens met "to consider the advisability of establishing a city hospital to care for the needy sick of the city." The result of this meeting was the purchase of a two-story brick dwelling on Pine Street and the erection of three small wooden buildings. The hospital was opened for patients March 25, 1895, with Dr. O. H. Weaver, senior resident surgeon, Grady Hospital, Atlanta, as superintendent, druggist, pathologist, etc. Provision was made for four private patients and sixteen ward patients. There were two nurses, two maids, two orderlies and one cook.

A training school for nurses was established in 1901. The first graduating class in 1903 had two members.

From time to time additions and improvements have been made to this hospital, the Macon Hospital. At present there are five well constructed buildings with two hundred and seven beds for private, semi-private and ward patients. Now under construction is a wing to contain twenty-six private rooms, a diet kitchen, a drug room, baths, etc. It has a complete laboratory, x-ray machines and all other equipment found in a large modern hospital.

The training school for nurses has grown as the hospital has enlarged. It now has a superintendent, eighteen graduate supervisors and ninety-two student nurses.

In 1925 Hopewell was opened for the treatment of tuberculosis. This hospital is on an elevation about six miles from the city and some distance from any highway. It has twenty-seven beds and is under the same management as the Macon Hospital.



JAMES MERCER GREEN, M.D.

The first private hospital to be built in Macon was the Williams Private Sanatorium, organized by Dr. Howard J. Williams in 1911. It had nineteen beds. In connection with the hospital there was established a nursing school with ten nurses. In 1918 it was purchased by a group of physicians and enlarged to sixty beds. And the name was changed to the Middle Georgia Hospital. The school for nurses has grown to an enrollment of forty.

In 1928 the Middle Georgia Hospital Corporation erected a three-story modern brick office building for doctors called the Doctors Building. The ground floor contains a drug store, medical library, radiographic and therapy x-ray machines, a laboratory, urologic treatment and x-ray room and a store-room. The two other floors are doctors' offices. In 1940 another floor and a roof were added. In this building are located men representing nearly every phase of medicine and surgery. This is on the same lot as the hospital and has a covered walkway connecting the two.

The next private hospital to be built was the Oglethorpe Infirmary, chartered in 1920 and opened for patients on Jan. 24, 1921. It had nineteen beds. In 1926 an annex was added, bringing the number of beds to thirty-six. On Oct. 21, 1921, a school

for nurses was established.

In June, 1921, the Clinic Hospital was chartered. It contains twenty-five beds. In 1930 additional rooms were added for doctors' offices and hydrotherapy equipment. This hospital does not operate a training school for nurses but employes nine graduate nurses.

St. Luke's Hospital is an institution owned and operated by colored people. It began with ten beds but now has twenty, and plans are made for further enlargement.

On May 26, 1925, twenty-eight wives of Macon physicians met at the Macon Hospital with Mrs. C. H. Richardson in the chair and organized the Macon Medical Auxiliary. At the next meeting the organization was completed and Mrs. B. S. Gostin was elected the first president. From the beginning until the present time this Auxiliary has been very active. The meetings are usually held monthly in the homes and many health problems are discussed. Many prominent medical men have read papers on timely subjects at their sessions. And when the State Association meets in Macon the Auxiliary renders most valuable service.

In 1913 the Board of Education put into operation medical inspection of the public schools. Dr. A. B. Jemison was appointed chief inspector with Drs. J. P. Holmes and C. H. Richardson as salaried inspectors to carry on the work. All schools were inspected and each child given a general examination. Duplicate reports were made to the board. This work is still in operation and very efficiently discharged. After examination each pupil is given a card by the examining physician indicating any abnormality found and suggesting that the pupil be carried to the family physician for correction.

No records of a health department are available until 1895, at which time Dr. Barron was chairman. He served through 1902, when Dr. Howard Williams became head of the department. Dr. Williams' term of office extended to 1915. Dr. O. H. Weaver was the next chairman and served for a number of years. During these years the department was not so well organized as at present. The duties of the board were more limited and the number of active workers was fewer. Reports of births and deaths were requested, but not enforced. Smallpox vaccination for school children was required, sanitary inspectors were employed, the removal of garbage was carried out and contagious diseases were quarantined. Other work was done as the occasion arose. No salaried health officer was employed, the chairman serving in that capacity.

In 1917 the U. S. Public Health Service offered to take over the work and the offer was accepted. Dr. Charles Williams, health officer, and several nurses were put in charge. The reports were filed in Washington, D. C. Dr. Williams served two years and the operation of the health department again became the duty of the city. When Dr. Charles Williams left a health officer who was not a physician was employed. This arrangement was not entirely satisfactory and in 1923, by a special act of the State Legislature, the city and county combined their health departments. The act called for a full-time doctor as health officer. On Jan. 1, 1924, the present health department began operation with Dr. C. L. Ridley in charge.

The present health board consists of the Chairman of Charity and Health, the Chairman of Finance, the Chairman of the County Commissioners, the Superintendent of Education and a physician appointed by the Bibb County Medical Society. The board supervises but the health officer is made responsible and is given authority to select all members of his staff.

In 1926 Dr. Ridley resigned and, on the recommendation of Dr. T. F. Abercrombie, State Health Commissioner, Dr. J. D. Applewhite, health officer of Clarke County Georgia, was secured. Dr. Abercrombie stated that "in my opinion he is the best health officer in the State of Georgia." The present staff is composed of a chief health officer, an assistant health officer, both physicians, six graduate white nurses, three colored graduate nurses, one sanitary engineer, three sanitary inspectors, one dairy inspector, one meat and food inspector, one

malarial control officer, one bacteriologist, two county scavenger collectors, one dentist and a secretary, all full-time employees.

The U. S. Public Health Service regards our health department as one of the crack units in the entire country. It recommends this unit to foreign health officers who come to this country for study and observation.

In 1937 a second office building for doctors, the Medical Arts Building, was erected on Walnut Street on the site of Dr. Baber's home. This building is of brick, modern in every respect and contains ten suites. One of the magnolia trees Dr. Baber planted more than a hundred years ago is still standing.

The first x-ray machines brought to Macon were owned by Dr. James T. Ross and Dr. J. C. McAfee. Both of these machines were the huge static machines and were used for therapy, principally of a psychic nature. The next machines were portable ones, the first having been bought by Dr. C. C. Harrold in 1907 and later two others by Dr. W. J. Little and the dentist, Dr. H. H. Johnson. No heavy machines were purchased until 1910, when Dr. C. C. Harrold bought a cross-arm rectifying Snook machine. Now all the hospitals have excellent x-ray machines. Two of them have recently installed both radiographic and theraphy machines of the latest and best construction.

From 1846 to 1881 Macon was the location of a medical college. It was called the Reform Medical College of Georgia. In 1874 the name was changed to the College of American Medicine and Surgery. In 1881 it moved to Atlanta and three years later became the Georgia College of Medicine and Surgery. This latter school was absorbed by the eclectics.

During the War Between the States there were seven hospitals in Bibb County: General Hospital on the corner of Mulberry and Third streets, Ocmulgee Hospital on Ocmulgee Street, Wayside Home Hospital on lower Mulberry Street, Blind School Hospital on Orange Street where the Nevaro Apartments now are, the Academy Hospital on the lot bounded by Walnut, Ocmulgee and First and Second streets, Vineville Hospital No. 1 on Pierce Avenue, and Vineville Hospital No. 2 on Hines' Terrace. At one time — during the War Between the States — Macon was headquarters for all the hospitals in Georgia, the wounded soldiers being sent here from all over the State. Dr. James Mercer Green of Macon was Surgeon General in charge of all the hospitals in Bibb County.

At that time there were no graduate nurses in Macon and the wounded soldiers were cared for by volunteers from the ladies in the county. Miss Mary Day, who later became Mrs. Sidney Lanier, was a nurse in the Blind School Hospital.

In a record of the early medical history of Macon some space should be devoted to Dr. Joseph LeConte. Of the medical men in Macon he became the most famous.

Dr. LeConte was a member of the well known LeConte family, nearly all of whom were scientists. His father was sufficiently wealthy to permit him to attend the universities best suited to the development of his ability in the sciences. He was reared on his father's plantation in Liberty County, Georgia, and received his elementary education in the local school supported by the planters. He also received additional instruction in mathematics, English, Latin and Greek. At one time Alexander H. Stephens was his tutor. His father maintained a chemical laboratory and possessed an excellent library of scientific books. Joseph spent a great deal of time in these two. He obtained his A.B. degree from Franklin College and his M.D. degree from the College of Physicians and Surgeons in New York City. And because of his interest in biologic science and evolution, he studied under Professor Louis Agassiz at Harvard University.

Dr. LeConte came to Macon in the middle eighteen-forties and remained through the early eighteen-fifties, to practice his profession of medicine. He was a member of the Macon Medical Society and was active in the organization of the State Medical Society in 1849. The record of his practice of medicine in Macon is meager, but the available evidence indicates that he was successful. He was very active in the

Macon and the State medical societies.

His love for geology and paleontology led him to accept a professorship in the University of Georgia. Later he taught in the University of South Carolina and finally in the University of California where the greater part of his work was done. In the scientific world he was well known and was recognized as an authority on the geologic history of the western mountains. He was criticized for teaching that scientific progress and true religion were in substantial agreement. Today this is generally accepted as a fact.

Another early Macon physician, Dr. James Mercer Green, deserves special mention. He was a highly educated, cultured gentleman of the best Southern type. I have already stated he was active in the local medical society and a most important member in the organization and development of the State society; also that he was Surgeon General in charge of all the hospitals in Bibb County during the War Between the States. He had a large practice and held the love and confidence of his patients as a physician and as a man.

He was instrumental in establishing the Academy for the Blind, in 1851, and was chairman of its first Board of Trustees. He also was the first physician for this institution. He held both positions for nearly thirty years, to the day of his death. All the oldest Macon citizens, as children, remember this efficient, kindly doctor.

The history of medicine in Macon parallels the history of medicine in general in the United States. One hundred years ago there were no vaccines, no serums, no anesthetics, no intravenous medication, no blood transfusions, no x-rays, no blood pressure instruments, no cardiograph nor many other of the common aids to the diagnosis, cure and prevention of disease. Medical achievements have progressed beyond the wildest dreams of these early physicians. Much is yet to be learned, but our search for knowledge is more intense today than ever before in the history of our profession.

HISTORY OF MEDICINE IN MACON

M. A. CLARK, M.D.*
Macon

The search for historic facts regarding the Bibb County Medical Society uncovered in the files of Dr. Frank K. Boland, chairman of the Committee on Medical History of the Medical Association of Georgia, the following article written in 1931.—Ed.

Rousseau said of doctors: "In every country they are the most truly useful and learned of men."

The part played by doctors in the development of Macon has certainly verified Rousseau's saying.

Macon was founded in 1823, and was named for a man who distinguished himself as a physician† and a statesman. Situated in the County of Bibb, named for another distinguished doctor, it is no wonder that a most important part of Georgia's medical history centers in her domain.

Dr. S. M. Ingersoll helped to build the first residence in Macon. Nothing is recorded of his ability as a physician, but he showed such statesmanship that he was elected in October 1823 to represent Bibb County in the Legislature. Dr. Ambrose Baber came to Macon in 1823 and was soon active as an able practitioner of medicine as well as useful and helpful in the affairs of public good. He was one of the first organizers of the Masonic lodge. He was senator from Bibb County in 1826-31-33-36, and in 1841 was appointed by President Taylor as envoy to Sardinia. He was honored by a great public dinner on his return in 1844. He was active as a physician and citizen until his untimely death in 1846.

The first fourth of July celebration in Macon was presided over by Dr. Thompson Bird, one of Macon's first settlers.

In 1829 Macon had a population of 2,000, and eight of them were doctors. In the fall of that year Dr. W. B. Rodgers was elected to the State Senate and served well.

*Deceased.

†Efforts to establish the fact that Hon. Nathaniel Macon was a physician failed of confirmation.—Ed.

There is no record of what these physicians did in medicine, but they must have served faithfully and well, to have had the esteem of the people as was evident.

In 1834 Dr. Robert Collins was one of a committee of citizens to get a woman's college, now known as Wesleyan College.

In 1835, Drs. Baber, Lamar, Ball, Franklin, McGoldrick, Jamison, Ellis, Bridgeman and Wiley of Macon met with seventeen doctors from Augusta and other sections of the State, to organize a State Medical Association. The plan was to have each county have an organization of its own and elect delegates to the State Association. The report of the meeting in the form of the address to the physicians of the State was signed by the following committee, all from Macon: Ambrose Baber, T. R. Lamar, William B. Ball, M. A. Franklin and R. McGoldrick.

These suggestions met with marked favor and meetings were held in various cities of the State, many times in Macon. The foundation for a State Association was prepared but for some unknown reason was not perfected till 1849.

It is probable that the Macon Medical Society was organized during this time and helped to keep the fires of medical organization burning. In 1849 when seventy-six physicians from over the State met in Macon and organized the Medical Association of Georgia, fourteen Macon physicians responded and became active members and Dr. J. M. Green was the first Secretary and Treasurer.

Dr. J. M. Green became intensely interested in the care of the blind children of the State and his efforts were crowned with definite action being taken, April 15, 1851. How he would rejoice if he could see our present Academy for the Blind and learn the wonderful work that is being done there.

From the fourteen charter members from Macon, the Medical Association of Georgia honored the following: J. M. Green, Secretary and Vice President; T. R. Lamar, Vice President, and C. B. Nottingham, Secretary and Treasurer, Censor and President.

During the succeeding years five other of Macon's physicians have been honored with the presidency.

EDWARD LINSSER STROHECKER, M.D.
(1815-1878)

Since 1835 the Macon Medical Society has played no small part in the affairs of medicine in the State and it is to be deplored that none of its record was preserved. The only record we can find is an old fee bill adopted in 1865 and amended thirty years later. For many years this Society was looked upon by the doctors of the State as one of the very best in the South in good fellowship, hearty cooperation and observance of ethics.

When the Medical Association of Georgia reorganized in 1905, adopting the plan suggested by the American Medical Association, making the county society a component part of the State Society, the Macon Medical Society reorganized and was chartered under the name of Macon Medical Society of Bibb County. Dr. Henry McHatton was President and Doctor Olin H. Weaver was Secretary of the new society. Since its reorganization the society has met regularly, encouraged scientific study and discussion of medical subjects, has stood for the higher ideals of medicine and has been an object of pride to its city.

Tradition tells us that in early days of Macon epidemics of smallpox were frequent and devastating to the citizens but, after a while, vaccination was so fully accepted that

CUSTIS BELL NOTTINGHAM, M.D.

only an occasional sporadic case is seen. In the early days malarial fever caused the death of many of the city's inhabitants. For many years there has been no malignant type and other types grow less each year due to the greatly developed work of the Board of Health.

For a number of years when discussing typhoid fever in our Association, some Macon physicians would facetiously advise their colleagues in other sections of the State to send their patients to Macon so mild had seemed most of the cases originating in the city. Since the days of pure water and milk and vaccination for the prevention of the disease, it is rare that a case is reported.

The diseases of childhood have been greatly reduced and with a little more education of the mothers, and further progress of the Board of Health, the dread of childhood diseases will be forgotten. Tuberculosis has been much reduced but there is still much teaching of the public and care of the unfortunate victims before it will be overcome.

The physicians of Macon still have as their slogan: *If you wish to keep well come and abide in Macon.*

THE ROMANCE OF MEDICINE IN BIBB COUNTY, GEORGIA

JESSIE DUNCAN BAZEMORE
GRACE IDE KING, *Chairman*
Macon
The Committee on Romance of Medicine of the Woman's Auxiliary to the Bibb County Medical Society

"Some of Macon's Firsts"

The committee on "Romance of Medicine" would like to present to you some of Macon's "firsts." Time often causes us to forget the many interesting and extraordinary facts of the past. Our city is full of them and we need but search a little to find much.

Edward Ambrose Baber, the first doctor, who was a twin, was born in Buckingham County, Virginia, Sept. 12, 1793. Although frail of body he was active and dynamic. He was forced to seek a milder climate after being injured in the Battle of Bladensburg during the War of 1812. He came to Georgia, first selecting Dublin; later he located in a town named Hartsford, now extinct.

Just as he had established himself General Jackson asked that he join his staff as surgeon on his invasion of Spanish territory in Florida. After the Seminole campaign he returned to Hartsford and resumed the practice of medicine. In a year or so he moved to a town in Twiggs County called Marion.

It was while there that he was asked to give his advice to a group of commissioners who wanted to lay out a new town named Macon. On account of his superior intellect, knowledge and judgment as a physician and scientist, Mr. Oliver Hillhouse Prince asked that he give them his opinion regarding health matters pertaining to this new locality.

He believed Macon a place of great promise and decided then and there to make it his home. He began at once to practice here, retaining an office also at Marion.

He warned and admonished the commis-

CAT.

sioners not to lay the town off too near the river, and for health's sake deemed it wiser for posterity to build the town as far away from the swamps as was possible. He predicted that in twenty years the city would be "moving over the hills and far away." Incidentally, Vineville was over the hills.

In 1823 Dr. Baber founded the Masonic Lodge No. 32. This was the first society of any kind formed in Macon.

In 1824 an academy, in Academy Vineyard, now Academy Street, was opened. Dr. Baber was the first trustee of the school.

The first bank in Macon was organized in 1825, and we find Dr. Baber its first president. This bank was on Walnut Street which seemed to be "the" street at that time.

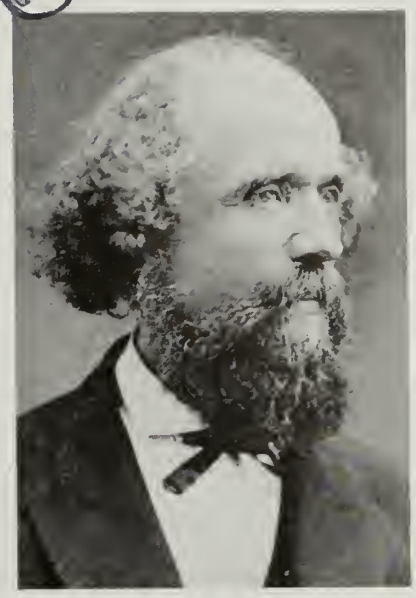
Dr. Baber took the first steps that led to the founding of Christ Episcopal Church. He believed in the importance of having a church organization in all communities. "He frequently called attention to the fact that there was no religious organization of any kind or house of worship in the new town and that such a condition should not exist."

Getting more and more interested in politics he made plans for Macon's first court house in 1827 and at the same time began building the new home which was to house his bride. This home is now the Clinic Hospital. There he planted, for the first time in Macon, English Ivy and Japanese Magnolia.

In 1829 he conceived, after talks with friends in the North, the idea of a railroad to connect "Macon with the sea" (Savannah), and thereafter was known as the "Father of the Central Railroad of Georgia."

In 1830-31 he made an attempt to start the first library in Macon. Using his own private books of many thousands as a nucleus he tried to interest the public in the use and place a library could have in the lives of those who would use it. Very few took advantage of this privilege.

Dr. Baber organized the first company of Macon Huzzars, at Macon on Oct. 31, 1831, and was commissioned its first captain.



JOSEPH LeCONTE, M.D.
(1825-1901)

Delving more deeply in the politics of the time, and now a member of the Legislature, he introduced a bill authorizing the Governor to appoint "three suitable persons to form a system of academic and free school education throughout the State." He was the first man to take up the subject of free schools.

On the day of his marriage to Miss Mary Sweet, June 16, 1829, she was pronounced in the last stages of tuberculosis. He believed he could cure his bride of this dread malady but at that time his friends and her friends and his professional contemporaries regarded his methods and opinions far-fetched, foolish, unwise and dangerous. But with proper diet, plenty of rest, fresh air, travel and life in the open in a favorable climate she outlived him forty-eight years. As Mrs. Baber often said, "He married me only to turn me out of doors."

On Sunday, March 8, 1846, when only forty-nine years of age, occurred the tragic death of Dr. Baber, in the sick room of a patient. The day was historically recorded as "Macon's Dark Sunday" (Quote from the biographical sketch of Dr. Baber by Dr. Custis B. Nottingham for the medical memoirs): "A dose of cyanide of potassium compounded by Majendie's recipe, as published under the sanction of the Medical

College of Philadelphia in the seventh edition of Ellis' Formulary, swallowed to convince the patient (who was suspicious of its improper strength which had been aroused by the apothecary) that it might be taken with impunity, terminated the life of Dr. Baber." The formulary contained a typographical error and that whole edition, as soon as possible, was recalled by the government and burned.

Three years following the death of Dr. Baber the Medical Association of Georgia was organized. "In pursuance of a call from the Medical College of the State of Georgia, and the Georgia Medical Society of Savannah, addressed to the practitioners of medicine through the State that they assemble in convention in the city of Macon, on Tuesday the 20th of March, 1849.

A motion was made by Dr. E. L. Strohecker that Dr. Thomas Hoxey be called to the chair and the convention was temporarily organized. The chair appointed Dr. S. W. Burney, secretary. Dr. R. D. Arnold moved that the members present their names to the secretary and be enrolled.

The members registering from Bibb County were: Drs. M. A. Franklin, C. T. Quintard, James M. Green, E. L. Strohecker, H. K. Green, C. B. Nottingham, Charles Thompson, J. B. Wiley, R. McGoldrick, Joseph LeConte, J. C. Gilbert, W. G. Little, J. R. Boon, Thomas R. Lamar, and J. W. Benson.

Dr. Lewis D. Ford, of Augusta, was elected president.

It was resolved, "That the convention now resolve itself into the Medical Society of Georgia."

Forty years passed and on Feb. 1, 1894, a number of citizens of Macon met to consider the advisability of establishing a city hospital to care for the needy sick of the city. Mr. T. Skelton Jones, treasurer of a fund for organized charity work, reported that he had on hand the sum of $3,500. A committee, consisting of Messrs. Joe Dannenburg, Isaac Hardeman and W. A. Doody, was appointed to call on the Mayor and Council to donate a site. A place near the City Hall was offered, but refused; then a house and lot were purchased on the corner of Spring and Hill Streets where Whittle School now stands. The medical board did not approve that selection for many reasons, so that the present site, the old Calloway House, was offered and approved with some little objections by the neighbors. At a call meeting the board adopted a resolution to open the hospital for business, but they had no funds to pay for running it. Thus the Macon Hospital came into being.

The late Calder Willingham closed the debate by offering to pay for one year all the cost that could not be raised for its support. "There were one or two beds and one volunteer nurse. The medical board offered their services gratis to all charity patients. The people knew so little about hospitals, except as a place to die. The hospital soon grew in favor, but it was so gradual that the first year was safely passed before the city was induced to make a small appropriation for its support." (Quoted from Mr. Campbell King's letter.)

Two trustees of the hospital board, Mr. Sam Jaques and Mr. A. R. Tinsley, copartners in a wholesale grocery company carried the hospital completely on credit when it became so involved in its running expenses.

A young man was finishing his internship at Grady Hospital in Atlanta, about this time, and he was "invited to come to Macon and stay for three months until he could get it going." This young man is our own beloved Dr. Olin Weaver, the first intern of the Macon Hospital.

"On my arrival at the Old Union Station I asked a hackman to take me to the hospital and, much to my surprise, he did not know of any such place. After inquiry I found my way to it. As I rode along I kept my eyes open for this new hospital and I was much disappointed when we stopped in front of the present site. A former residence used now as an office and part hospital, with three cheaply built wooden shacks in the back yard. These, which were to become wards and operating room, greeted my eyes," stated Dr. Weaver.

As this young man entered the building

he was greeted by Mrs. J. A. Thomas, who exclaimed, "Oh, you are the new doctor!" Mrs. Thomas was head of the King's Daughters, which organization, realizing the need for a hospital here, had tried to build one but insufficient funds prevented them from carrying out their purpose.

The Macon Hospital was officially opened with appropriate exercises on March 25, 1895.

A coincidence happened at this time which later became quite tragic. The hackman who had driven Dr. Weaver to the hospital was named Spikes. When he carried Dr. Weaver's trunk in he said, "Dis de hospital? Yer, don't git me here in dis place." But later, in a few days, this same Negro was backing his dray up to the tracks at the Old Union Station for some freight, when a switch engine hit the dray and the Negro was seriously injured.

Dr. Howard Williams, surgeon for the Central of Georgia Railroad, asked Dr. Weaver to permit him to bring the patient to the hospital. This permission was granted and Spikes became the first patient to be operated upon in the hospital where he declared he would never go. This happened the night before the official opening, and the amputation of Spikes' arm was the first operation to be performed.

The first white patient was a Mr. Antony, who was operated on for cataracts by Dr. W. C. Gibson.

Dr. Weaver assisted these two surgeons and Dr. H. P. Derry administered the anesthetics. Dr. Weaver was not only interne and assistant to the surgeons, but cashier, druggist, pathologist and laboratory technician.

The first baby born in the new hospital was the son of Mr. and Mrs. Joe Steed, the father being a conductor on the Central of Georgia Railroad.

The first superintendent was Mrs. S. P. Crawford, and working with her was one nurse, two maids, two orderlies and a cook. There were accommodations for four private and sixteen ward patients.

On the first board of directors were Messrs. Sam Jaques, A. R. Tinsley, R. E. Park, Mayor H. Horne, McEwen Johnson, Rev. F. R. Reese, C. B. Willingham, Roe Rogers, Frank West and Campbell King.

The first medical board was composed of Drs. J. H. Shorter, Wm. F. Holt, H. McHatton, W. R. Winchester, K. P. Moore and Max Jackson.

"The primary objective of the hospital was to care for the indigent sick of the city, but these people whom the hospital intended to help were slow to accept the service. They were unfamiliar with the workings of hospitals and looked upon them as experiment stations and felt that they who entered left all hope behind. The people became acquainted gradually with the benefits afforded and soon the beds were all occupied and a waiting list had to be established."

The Training School for Nurses was established in 1901. Miss Helen Burns and Miss Minnie Brown were the first graduates in 1903. The nursing prior to the Training School was done with graduate nurses. The nursing profession in Macon had its beginning with the hospital. "It may surprise you to know," said Dr. Weaver, "that there were no trained nurses in Macon when I came to open the hospital. Miss Anne Sutlive, sister of the late Mr. Wm. Sutlive, prominent newspaper man of Savannah, was the first nurse to live here and practice her profession. It was decided to establish a Training School for Negroes, shortly after the reorganization of the hospital, thinking that by so doing, the graduates would become messengers of hygiene and sanitation to their people and thus be of assistance in the work of preventive medicine. The idea was good, but for many reasons it did not prove satisfactory and was discontinued after a few years."

Many new things were being tried out at this time, among which was the introduction of rubber gloves in operative work. All doctors did not use them then and some never did.

Chloroform and ether were used almost exclusively with just a little nitrous oxide. No local anesthesia except cocaine, which was considered too dangerous to be used often.

The surgeons who operated at the hospital those first years were: Drs. Howard Williams, J. T. Ross, J. K. Moore, Max Jackson and Henry McHatton.

The Board of Education, in 1913, with Mr. A. L. Miller as chairman, decided on medical inspection of the public schools. They appointed Dr. A. B. Jemison chief inspector with Drs. J. P. Holmes and C. H. Richardson, as salaried inspectors to do the work. All schools in Bibb County were visited, giving each child a general examination. This would take all day in each school. The reports were made out in duplicate to the board. Thus we have the beginning of the medical care in the public schools as we know it today.

The first sanitary inspector was a Mr. John Dietz, who only placarded houses when contagious diseases were discovered. Georgia had no vital statistics law at that time, so it was not compulsory for doctors to report contagious cases.

In 1917 a board of health was organized made up partly of doctors. Dr. Howard Williams was chairman, and Dr. Olin Weaver was another member.

The United States Public Health, in 1917, offered to take over the health department and staff it with men and nurses. Dr. Charles Williams was placed in charge. They began to collect statistics and file them in Washington, D. C.

During Mayor Glenn Toole's first administration, in 1919, Dr. Williams persuaded the city to put in a health officer, since he was leaving. The health officer appointed was not a doctor and his methods were not always for the best interests, and his resignation was soon accepted.

The Bibb County Medical Society at that time made several efforts to put into effect the Ellis Health Law—a State-wide health law, optional to counties. It was never passed here.

By a special act, passed through the State Legislature in 1923, the city and county combined their health departments. It called for a full-time doctor as its health officer. On Jan. 1, 1924, the present health department was started, having as its health officer Dr. Chas. Ridley, who had come to Macon in 1922 under the old health organization.

The new health board, under Mayor Luther Williams' administration, consisted of a chairman of charity and health, who is now one of our Auxiliary members, Mrs. Charles Harrold, the chairman of finance; Mr. Ben J. Dasher, the chairman of county commissioners; Mr. F. Joe Bishop, the superintendent of education; Mr. Charles Bruce and a doctor appointed by the Bibb County Medical Society. The doctor was Dr. C. H. Richardson.

At this time only 20 to 25 per cent of persons were being vaccinated for smallpox. There were periodic epidemics of the disease, although vaccination had been made compulsory since March, 1898.

There were the 2,000-5,000 outdoor toilets with open wells nearby, that was a menace to the health of the people of Macon. Proper sewerage and sanitation were begun, full publicity of it was given in the daily press, asking cooperation of not only those involved but everyone in Macon.

It was at this time that an effort was made to reduce the diphtheria cases. One thousand children were inoculated with toxin-antitoxin. Some of this serum was recalled on account of its drastic results.

Now, that the department had been reorganized, the work was beginning to move more efficiently. Previously politics had mixed itself into the department and anyone who could interest some politician in himself was appointed to the health department. At one time a "paralytic, a worn out policeman and an old man, at least seventy years old, worked for the health department." Under the new ruling the health officer was to be selected by the city and county and all hiring and dismissing were done by him.

The first health nurses were Miss Dolly Peacock and Miss Thora Andersen. They looked after only the tuberculosis and contagious cases.

The State of Georgia had passed a law in 1914 requiring reports on births and deaths. This was not carried out fully or properly. Again in 1919 it made appropriations available for this work.

The health officer who followed Dr. Williams employed a corps of workers, who went out daily to obtain this information. These persons were paid twenty-five cents for each certificate they wrote.

When records began to be investigated they did not tally. People had died who had not even been born; some had been born who could not be found. A complete and corrected survey had to be made to obtain the correct statistics. This was done under Dr. Ridley's term of office.

Dr. Ridley resigned as first health officer and Dr. J. D. Applewhite was appointed July 18, 1926. He came from the Clarke County Health Department, on the recommendation of Dr. T. F. Abercrombie, head of the Georgia State Health Department, who stated that "in my opinion he is the best health officer in the State of Georgia."

The United Public Health Service regards our health department as one of the crack units of the entire country, for a city of this size. Frequently it recommends it as a unit for study and observation to foreign observers who come to this country for the study of health problems.

Macon has moved on since the beginning of some of its "firsts." Progress means moving on. The hospital now is a large plant with five buildings instead of one and with accommodations for one hundred and fifty instead of twenty, giving service to thousands every year. From a few doctors the public now has at its service nearly a hundred and a health department unsurpassed and wide awake to all the needs, that will keep Macon a good place in which to live.

I wish to extend my thanks for information in this paper to Miss Mary Baber-Blackshear, and the September 1938 issue of the Georgia Historical Quarterly, Dr. Olin Weaver, Dr. Charles Ridley, Dr. Charles H. Richardson, and Dr. J. D. Applewhite. Also from the "Transactions of the State Medical Society of Georgia 1849-1854." (Proceedings of State Medical Convention held at Macon, March 1849, and Constitution of the Medical Society of State of Georgia) Macon, printed—S. Rose & Co. 1849.

The seventeenth scientific meeting of the American Heart Association will be held at Hotel Statler, Cleveland, Ohio, May 30-31.

Attributing to medicine its distinguished place in contemporary history, *Current Biography*, published by The H. W. Wilson Company of New York City, includes biographies of 55 modern medical men and women in the magazine's first bound annual volume. This cumulation of 1940 monthly issues in a 925-page book, ready in April, can be consulted in libraries all over the country.

THE MACON HOSPITAL, MACON

Olin H. Weaver, M.D.
Macon

In these days when hospitals are found in most every town of five thousand population or less, and our national government proposes spending millions of dollars for the erection of many more, in less populated and probably less needed communities, it is difficult to believe that until 1895 Macon with a population of twenty-three thousand had no hospital. During the War Between the States there were temporary hospital facilities provided here for the care of the soldiers, and there was also the Roff Home, a county institution for the care of the aged indigents of the community, which was in the nature of a pauper farm and could not properly be classed as a hospital. Prior to 1895 neither were there graduate nurses here. Miss Annie Sutlive, a sister of the late Mr. William Sutlive, prominent newspaper editor of Savannah, was the first to locate and practice her profession here. Prior to the establishment of the Macon Hospital, medical and obstetrical patients were cared for in their homes, depending upon members of the family, kind neighbors, or untrained and ignorant Negroes to do the nursing. In surgical cases, improvised operating rooms were set up in the kitchen or spare room. At times some layman assisted in the operation or in administering the anesthetic, usually chloroform. The practice of antiseptic technic, with the use of carbolic acid, bichloride of mercury, and the ever present iodoform, was being displaced by the principles of asepsis, and the use of rubber gloves was not in vogue. The astounding comment on the circumstances under which the physician then labored was the successful outcome of much of his work.

For sometime prior to the opening of the hospital there had been discussions as to the feasibility of the proposition. The King's Daughters, an organization of good women of the city, were perhaps the first and most active workers in the undertaking.

MACON HOSPITAL, Macon, 1895

Bazaars, festivals, and other means were employed in an effort to secure funds. The churches were requested to have "Hospital Sundays," the collections to be used in the interest of the hospital. This was done, but the collections were very small. It seemed that large amounts could be raised for the aid of foreign missions and the like, but when it came to more practical Christian enterprises they were not concerned.

The interest of a number of business men was elicited, organization of The Macon Hospital Association was perfected, and a charter was granted in 1894. Among those active in this endeavor were the following: Skelton Jones; Reverend, and later Bishop F. F. Reese; Mayor Henry Horne; E. J. and C. B. Willingham; S. R. Jaques; T. D. and A. R. Tinsley; R. E. Park; McEwen Johnson; Campbell King and others that I fail to recall. The munificent sum of thirty-five hundred dollars was in the association's treasury as a building fund! The wisdom of attempting the project without more funds was seriously doubted. Mr. C. B. Willingham, one of the city's most progressive citizens, offered to pay any deficit that might accrue for the first year. So with this meager financial outlook, but with strong conviction of the importance of the project and an abiding faith that the community would come to its assistance after seeing it established, The Macon Hospital was officially opened March 25, 1895.

There had been some difficulty in choosing a location. At first, a lot on Coleman Hill was selected, but a threatened injunction by surrounding residents prevented. Later, the old Calloway residence on Pine Street, between Spring and New streets, was definitely decided upon. The brick residence, now interiorly remodeled, and used for administration offices and interne quarters, was first employed for white patients and operating room. Two wooden buildings in the rear were used for colored wards. The total bed capacity was for twenty patients.

The first medical board was composed of Drs. William F. Holt, H. McHatton, W. R. Winchester, J. H. Shorter, Max Jackson, and K. P. Moore. Dr. O. H. Weaver was the first superintendent and resident physician and surgeon, and has been con-

MACON HOSPITAL, Macon, 1941

tinuously associated with the hospital in some capacity since that time. The Macon Medical Society offered the services of its members to the charity patients without remuneration. The hospital adopted a rule that only members of the Macon Medical Society would be permitted to serve on its staff or treat patients in the hospital. It is interesting to relate that only in recent years the House of Delegates of the American Medical Association adopted a resolution that only members of local units of the A.M.A. be permitted to serve on the staff of hospitals recognized by the Association. The principles of this resolution were recognized and practiced by the Macon Hospital forty years prior to the rule of the A.M.A. I mention this as evidence that the hospital from its beginning has given its support and appreciation to organized medicine.

The hospital was not patronized well at first; the public having had no experience with such institutions was inclined to think of it more as an experiment station, than as a place for the intelligent diagnosis and treatment of human ills. Gradually as they became better acquainted with its good work, the patronage grew to its capacity, and in a short time there was demand for more accommodation. Mr. Thomas Gresham of Baltimore, a member of an old Macon family, donated funds for the erection of The Gresham Building in memory of his mother. This provided for the white wards and operating room. Later, the Jaques' Annex, named in honor of Mr. S. R. Jaques, was erected and used for private patients and a classroom and library.

Only graduate nurses were employed from the opening of the hospital until the establishment of the white nurses' training school in 1901. Later a training school for the Negroes was organized, with the idea that its students would be used in caring for the colored patients, and its graduates would be helpful as missionaries to their people by teaching them sanitary and hygienic measures in their homes. After a period of three or four years, for various reasons, this feature was abolished.

As the number of patients increased, with the greater portion of them charity and with insufficient funds to defray expenses, the

NURSES' HOME AND HEALTH DEPARTMENT BUILDING, MACON HOSPITAL, Macon, 1941

board of directors persuaded the city and county authorities to take over the hospital. This was agreed to, and a bond election was ordered and carried for the purpose of issuing bonds, with which to pay the indebtedness and enlarge the hospital. The control of the hospital was placed under a joint commission appointed by the City Council and County Commissioners, with the Mayor and Chairman of Commissioners ex-officio members. This arrangement has continued to the present time. The support of the hospital is maintained from the taxes of the citizens of Macon and Bibb County, and from the revenue derived from private patients.

One of the unfortunate and should be unnecessary handicaps that has harassed the hospital has been the imposition of charity patients from surrounding counties taking advantage of its services. Many of these cases, being of an emergency nature, could not be denied admission. Legal provision was recently enacted by which the expense for the care of these unfortunates could be borne by the counties from which they come. Few counties have adopted the plan, so the burden of these cases continues to be imposed on the taxpayers of Macon and Bibb County. The law should be mandatory instead of optional.

Recently a new, well appointed children's ward* has been built, the operating rooms furnished with the latest improved operating tables and equipment, and new x-ray diagnostic and therapy outfit installed, and an addition to the private pavilion of thirty rooms. The hospital today has 225 beds. Admissions in 1940 of 6,000 patients with 643 births. In addition, the outdoor clinic gives attention to hundreds. A largely attended venereal clinic is under direction of experts. A well trained Negro physician supervises the clinic for Negroes and is rendering a splendid service. The hospital is recognized as Class A by the American College of Surgeons, also approved for the training of interns. It is one of seven in the State selected by the American College of Surgeons as conducting an approved cancer clinic, and has been treating State cancer patients from this territory. It is

*Named in honor of the worthy author of this article, whose modesty is not only inspiring but commendable.—Ed.

also taking care of State crippled children. No more worthy work can be rendered by our profession than has been done in these departments; the pity is that there is not sufficient appropriation by the State to carry it on in greater measure.

The present efficient hospital commission is composed of Mr. William C. Turpin, Jr., chairman, and Messrs. Calder Clay, Mayor Chas. Bowden, Horance Mitchell, and Dr. C. L. Pennington. Dr. Charles L. Ridley has been superintendent for several years, and has rendered an efficient and faithful service. The visiting staff is composed of experienced and well trained specialists. A splendid training school for nurses, capably superintended by Miss Coralie Brady; an efficient house staff that is afforded a vast clinical field for post-graduate studies. The anesthesia department is under the expert care of Miss Caroline Hewes, who has had a large and varied experience in this most important specialty. Miss Elizabeth Branch in charge of the operating-rooms nursing is painstaking and efficient. The pathologic laboratory and x-ray rooms are under the direction of Dr. Max Mass, to whom credit is due for the excellent work of these departments. Messrs. W. T. Montgomery and J. T. Yearty are in charge of the business offices, without which the hospital could not carry on.

So, from an old residence of small capacity and with meager financial support the hospital, like the proverbial acorn becoming a sturdy oak, has grown to its present proportion, as one of the leading institutions of its kind in the State, of which the public and medical profession of this section are justly proud.

Items taken at random from *Current Biography* 1940 include such little-known data as: Dr. Chevalier Jackson, dean of laryngologists, helped work his way through college by painting china and glass; Dr. Thomas Parran, Surgeon General of the United States, once milked a cow on a city street to boost milk consumption; Dr. Henry Ernst Sigerist, one of the world's greatest medical historians, used to get up at dawn to study Arabic grammar.

THE CLINIC, MACON

Geo. Y. Massenburg, M.D.
Macon

Immediately following the World War, under the leadership of Dr. W. C. Pumpelly, an idea of group medicine began to take form. Idealistically, it seemed a way to more efficient practice of medicine. With this end in view a group was assembled consisting of Dr. Pumpelly, internist; Dr. Harry Moses and Dr. G. Y. Massenburg, surgeons; Dr. D. T. Henderson, eye, ear, nose and throat; Dr. C. D. Cleghorn, roentgenologist; and Dr. P. G. Gates, dentistry.

A charter was applied for under the name of the Pumpelly-Massenburg Company, which was granted in 1919, to operate a clinic and hospital. Originally, it was intended only to build the Clinic Building but, because of the shortage of hospital beds, it was decided to build a small hospital too.

The old English home was originally built in 1829 by Dr. Ambrose Baber, one of the first physicians of Macon, and was subsequently occupied by the Guttenberger family from whom the place was bought. It was of solid brick walls throughout and rectangular in shape. This was easily arranged into a convenient group of offices for the attending staff. The hospital addition was added to the old building which gave a bed capacity of twenty-five including a small nursery, an operating suite, an obstetrical department, clinical laboratories and x-ray department.

The building was completed and opened in June 1921. Things worked very pleasantly for several years but the idea of group practice did not seem to be practical, at least it did not work out so, and Dr. Pumpelly retired from the group.

Dr. W. J. Little was elected president at this time. Also Drs. J. E. Clay, J. C. Anderson and R. L. Cater became associated with the clinic. Dr. Little served as the directing head of the corporation until his death in 1929. Dr. G. Y. Massen-

THE CLINIC, Macon

burg was elected president, Dr. J. E. Clay, vice-president and Dr. D. T. Henderson, secretary and treasurer. The same officers have continued to serve until the present time, with the exception of Dr. D. T. Henderson whose death occurred in 1931 and since that time Dr. O. O. Watson has been secretary and treasurer.

In 1928 an addition was built to provide additional office space for attending physicians. There was also installed in the addition a modern physio and hydrotherapy department.

These additional offices were occupied by Drs. A. P. Kemp, Frank D. Mitchell, H. W. Craddock, R. L. Cater and Thomas A. Hurley and subsequently, Drs. J. C. McAfee and L. C. McAfee. The occupants at this time are Drs. G. Y. Massenburg, J. E. Clay, O. O. Watson, T. A. Hurley, L. C. McAfee, W. D. Jarratt and Harry Craddock.

The corporation adopted the name of "Clinic" and has been operated under that name ever since its occupancy. It has been open to all members of the Bibb County Medical Society.

THE MIDDLE GEORGIA HOSPITAL, MACON

CHAS. H. RICHARDSON, M.D.
Macon

The Middle Georgia Hospital is the oldest private hospital in the City of Macon. It was chartered in 1911 as the Williams Private sanatorium and its founder and first owner was a pioneer surgeon of middle Georgia, Dr. Howard J. Williams. Before it came upon the scene, the only service available for private patients was a small private pavilion at the Macon City Hospital. Realizing the need of an expansion of facilities for private patients, Dr. Williams purchased some land adjacent to the Macon Hospital property and began the erection of a private hospital. It consisted of 19 beds for private patients, had a chartered training school for nurses, and was opened to the public in October, 1911. It was operated successfully by Dr. Williams until his death in 1917.

In 1918 it was purchased by its present owners and Dr. Max Jackson became the first president under the new ownership. As the demand for hospital facilities increased, more beds became necessary and it was enlarged in 1923 to a total of 50 beds. At the death of Dr. Jackson in 1925, Dr. C. C. Harrold became its president and has remained in that capacity until the

DOCTORS BUILDING and MIDDLE GEORGIA HOSPITAL, Macon

present time. In the meantime, two other private hospitals had been built and the idea of hospital care for the sick had grown rapidly in public favor.

In 1923 the name of the institution was changed to the Middle Georgia Sanitarium and some years later this was in turn changed to the Middle Georgia Hospital. By this time its staff had increased to 20 members and the institution considered the plan of building an office building to house its staff. This was done in 1928 and a modern four-story office building, known as the Doctors Building, was completed as an integral part of the hospital plan. The x-ray and clinical laboratories are located in this building and it houses the members of the staff.

The Hospital's capacities are now taxed to capacity all the time and a program of enlargement will necessarily be its next step.

THE OGLETHORPE PRIVATE INFIRMARY, INC., MACON

A. R. Rozar, M.D.
Macon

A group of doctors, five in number, feeling that there were not enough hospital facilities in Macon, decided to organize the Oglethorpe Private Infirmary, Inc.

In 1920 Drs. T. H. Hall and A. R. Rozar bought the Olin Wimberly property, the site of the present hospital. This property was originally the property of Mr. B. F. Ross, who built his residence in 1859. This later was occupied by the late Harry Stillwell Edwards and still later by Mr. Olin Wimberly, a prominent lawyer of Macon.

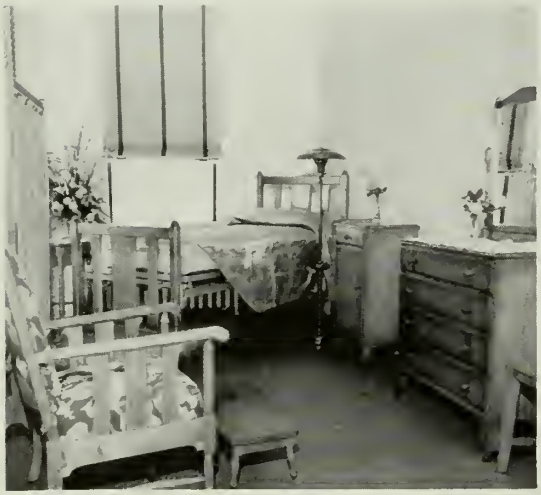
In this same year a charter was applied for, to operate a general hospital and a training school for nurses. The incorporators were T. H. Hall, A. R. Rozar, J. L. King, Herbert Respess, and C. H. Walker.

Three of the original five stockholders are in active operation of the institution, Dr. C. H. Walker having retired and Dr. Herbert Respess having died in 1932.

The original residence was renovated and changed for hospital use, and the doors opened for patients on Jan. 24, 1921.

In October 1921, a training school for nurses was opened under the direction of Miss Mary Campbell, R.N., a charter mem-

OGLETHORPE PRIVATE INFIRMARY, Macon



OGLETHORPE PRIVATE INFIRMARY—PRIVATE ROOM, Macon

ber of the Georgia State Nurses' Association. The first graduating exercises were held June 19, 1925 at Vineville Methodist Church, Congressman Sam Rutherford delivering the baccalaureate address. Up to the present time there have been 88 nurses graduated from this institution. Adjoining the hospital is the nurses' home and in this building are the lecture rooms and laboratories for the nurses' training school.

In 1926, having outgrown the original plant, there was an addition made to the hospital, increasing the capacity from 19 to 36 beds and six bassinets. This addition included a modern delivery room and nursery.

In 1922 the x-ray department was established by Dr. James A. Fountain. In 1925 radium was purchased, and in 1926 a high voltage x-ray machine was installed. In 1937 a shockproof deep therapy machine was installed. This department for general x-ray and radium therapy and treatment of neoplasms has been under the direction of Dr. Fountain since its installation.

The hospital maintains a well-equipped clinical laboratory, electrocardiograph, and other important diagnostic equipment. There is a dietetic department under the direction of a graduate dietitian. There are medical and x-ray technicians and a record librarian.

The institution is on the accredited list of the American College of Surgeons. It has a regular staff that covers the various divisions of the practice of medicine, but the courtesy of the institution is extended to the doctors of the Medical Society of Bibb County.

Since its organization there have been 10,180 patients admitted.

The present officers of the corporation are: Dr. A. R. Rozar, president; Dr. T. H. Hall, vice-president; Dr. O. F. Keen, secretary-treasurer.

The officers of the medical staff are: Dr. T. H. Hall, chairman; Dr. J. L. King, vice-chairman; Dr. Jas. A. Fountain, sec-

retary, and Mrs. Elizabeth Pierce, business manager.

The nursing staff is composed of: Miss Althea Williams, R.N., superintendent of nurses; Miss Dallas Glenn, R.N., instructress of nurses; Miss Bessie Bowen, R.N., operating room supervisor; Miss Alice Justice, R.N., night supervisor, and Miss Louise Ivey, B.S., graduate dietitian.

THE BIBB COUNTY HOME, Macon

THE BIBB COUNTY HOME, MACON

Chas. L. Ridley, M.D.
Macon

In February, 1874, Dr. J. Emmett Blackshear was elected surgeon for the County Hospital and jail. The County Hospital at that time was nothing more nor less than what we now know as a pest house used exclusively for the care and quarantine of smallpox patients.

A few years later, in 1886, the citizens of Macon and Bibb County found it necessary to make more definite arrangement for the care of the poor in Bibb County. Mr. A. A. Roff, a prominent citizen of Macon, generously donated to the city and the county the land upon which such home was to be built. This location was on the Central Railroad leading to Atlanta, and lay between the railroad and the property on which now is built the Lanier High School for Boys and consisted of approximately twenty-five acres. It was decided to build on the cottage plan. Bids were opened for the new home for the poor on Nov. 2, 1886. The contract was let to Mr. G. B. Pettit, and the architect was Mr. D. B. Woodruff. Mr. John Knight was appointed superintendent of the erection of buildings for the home on Dec. 13, 1886.

The Board of County Commissioners inspected and received the buildings from the contractor, Mr. G. B. Pettit, on May 16, 1887. Dr. P. H. Wright was the first physician, and Mr. S. S. Harmon was the first superintendent. It was ordered by the County Board on May 23, 1887 that the home should be known as The Roff Home, in honor of their fellow citizen who had donated the land to the city and the county. On this property was also located the pest house where smallpox patients were confined and treated from 1887 to October, 1926.

About the first of the year 1926 the County Commissioners decided to relocate and to rebuild The Roff Home. The county had acquired property on the Cochran Short Route six miles from the city, and a modern home for the aged and decrepit was erected and was occupied the latter part of October, 1926. This property is located on what is known as The Weaver Road which connects the Cochran Short Route and the Riggins' Mill Road and is named in honor of the late Hon. W. H. M. Weaver, who died in office as county commissioner and who was very much interested in the improvement and development of the County Home, the

JUVENILE HOME, Macon

Juvenile Home. and the County Farm. Mr. Weaver was the father of Dr. H. G. Weaver, the brother of Dr. O. H. Weaver.

The first superintendent of the home was Mr. W. T. Watson who served in that capacity from January 1898 to January 1932. The first physician to the new home was Dr. Herring Winship, now deceased.

The new home is known as The Bibb Home, and the number of inmates transferred from the old Roff Home to the new Bibb Home was forty-nine with attendants and nurses numbering seven. The present superintendent is Mr. R. S. Dillard. The present physician is Dr. Charles L. Ridley. The number of inmates at this time is 116, with attendants and nurses numbering 16. The new building is modern in every particular, steam-heated, and all rooms are well-lighted and ventilated. Under the able management of Mr. Dillard it is an institution of which our city and county are justly proud.

JUVENILE HOME, MACON

CHAS. L. RIDLEY, M.D.
Macon

The Juvenile Home is located on the Cochran Short Route on property owned by Bibb County, known as the County Farm Property. In addition to the picture here shown there is also on this property a modern home for the care of colored children who are charges of the Juvenile Court.

This institution is also under the superintendency of Mr. R. S. Dillard, whose work with these children has been outstanding.

The number of children now in the home is forty-nine; the number of attendants and nurses is nine. The matron is Mrs. J. H. Tidwell; the superintendent, R. S. Dillard, Jr.; the physician, Dr. Charles L. Ridley.

HOPEWELL SANATORIUM, MACON

J. D. APPLEWHITE, M.D.
Macon

Hopewell Sanatorium, for the care of cases of tuberculosis, was built in 1926 and was opened in January 1927. The need for such an institution was recognized many years before it was possible to secure funds for its construction.

In 1918 the City of Macon voted a bond issue for $25,000.00 to be used for the construction of a hospital for the care of patients with tuberculosis.

The hospital has a capacity of twenty-five beds and has been operated to capacity since its opening, caring for both white and colored patients.

For two years the institution was operated by the local Antituberculosis Commission with funds appropriated by Bibb County. In 1928 it was placed under the Macon Hospital Commission and since that time has been operated by that body.

Since its opening six hundred and seventy-nine patients have received hospitalization. At the present time there are twenty-six patients in the institution and there are always some on the waiting list.

HOPEWELL SANATORIUM, Macon

This hospital is one of our most important assets in the tuberculosis control program, but all recognize that it is not large enough to meet the needs of the community.

SAINT LUKE'S HOSPITAL, INC. MACON

C. W. E. Dyer, M.D.
Mrs. C. W. E. Dyer
Macon

Saint Luke's Hospital, Inc., was organized Nov. 20, 1928. Seeing the need of such an institution in this section of our State, we decided to put forth every effort towards development of such an institution. Not having enough cash money it took a great deal of thinking and planning for this worthy cause; but having faith in this effort and the good people in this section we decided to go forward with this movement.

It soon became apparent to the physicians, both white and colored, and also to the laymen, that the hospital was a definite asset to the community; consequently there was a growing increase in patronage. After a few years of great struggle the number of beds soon increased from ten to fifteen and then twenty; and at present we are in the process of enlargement, increasing our beds to thirty. It soon became evident that the hospital facilities were not adequate to meet the growing need. Therefore as a step forward in order to obtain a modern building, Saint Luke's Hospital was incorporated November 1939, as a non-profit institution for the care and treatment of Negroes throughout this section. Patients will be admitted for full-pay, part-pay, and some free patients where it is possible.

A board of trustees is composed of twelve Negroes at present and five white persons who will be appointed as soon as possible as provided by our charter. The twelve colored members chosen on this board were selected from various sections in this city, and because of their altruistic interest in the problems of our community. It is the object of this board to find ways and means of providing a new hospital building.

We have been very fortunate in having the splendid cooperation of our nurses, and all the other help who constitute our working staff. Without this it would not have been possible to achieve the wonderful success made thus far. Too much praise cannot be given to Nurse Beatrice Lawrance in her determined efforts to help to put the program over. Without her, no doubt our labor would have been a greater task. We must also mention our night supervisor, Nurse Murma Gorden, who is always on the job doing her bit in helping to put over this great program. The orderly, the maids and the cook also render a great service.

We cannot write of the hospital without mentioning the loyal support given to us

ST. LUKE'S HOSPITAL, Macon

during these past twelve years by splendid white physicians, especially we must mention the following: Doctors A. R. Rozar, C. C. Harrold, Thomas Harrold, O. F. Keen, H. G. Weaver, Rhea Richardson, Wallace Bazemore, Willard Golson, J. C. Anderson, C. F. Cooper, W. A. Newman, John I. Hall, and many others who have had the interests of this institution at heart for its development.

The *Macon Telegraph* and *News* have always been great friends to us in this great movement, always ready to cooperate in all of our endeavors to promote better feeling among the public toward the institution. Mrs. M. D. Singleton, our beloved editor of the colored section, has always answered our call and is ready at all times to give any service that is in her power.

The churches, both white and colored, being led by their leaders and auxiliaries of these institutions, have always rendered a helping hand in this great work. Dr. Douglas L. T. Robinson, pastor of Steward Chapel A.M.E. Church, is the vice-president of this institution, and he is always on the job for the best interests of the institution.

MERCER UNIVERSITY

JOHN D. ALLEN
Macon

Dates in the history of Mercer University suggest a long and respectable past, but they fail to suggest the remarkable record of the institution in training leaders for the business and professional worlds.

Founded by Jesse Mercer at Penfield, Georgia, on Jan. 14, 1833, Mercer Institute sought primarily to train candidates for the Baptist ministry. Almost from the beginning, however, student attendance increased; and soon Georgia Baptists had conceived the plan of establishing, and had raised endowment for, a university, for which a charter was obtained in 1837. By 1845, Mercer was graduating students in three divisions: the Academy, the College, and the Theological Seminary. It continued to flourish until the War Between the States.

War and subsequent depression meant a period of decline in Mercer's history, ended by removal to Macon in 1871. Two years later a law school was added, still one of the best in the South. New buildings were

MERCER UNIVERSITY, Macon

erected; endowments gradually grew; libraries and laboratories were improved; through the years, under the leadership of outstanding educators, Mercer University maintained a high position among the private educational institutions of the country. By 1914, it had graduated many of Georgia's leaders at the bar, in the pulpit, and in business.

A period of rapid post-World War expansion, during which student enrollment increased four-fold, was followed, beginning with 1928, by a period of reconstruction under President Spright Dowell. A new charter has been obtained, which defines the functions of Mercer University as those of a Liberal Arts College and a School of Law. The curricula of the several divisions of the college have been improved to conform with the soundest contemporary practice. The faculty has been strengthened. Programs of student guidance and student welfare, designed to aid the student in choosing wisely a profession and adjustment to a changing society, have been inaugurated. Libraries and laboratories have been greatly improved, and five major buildings have been constructed, four others renovated. Mercer now compares favorably in physical plant and educational opportunities with institutions of its size anywhere.

Coeducational since 1923, Mercer educates women in increasing numbers to fill useful positions in office, classroom, and home. The large majority, however, of its graduates have heretofore been men; and of them, most have gone into business and the four professions of law, pedagogy, ministry, and medicine. Through the law, many have attained leading positions in government, not only in Georgia and the South but in the nation as well. For example, at the present time Mercer alumni fill three of the most important posts in Congress: the chairmanships of the Senate Foreign Relations Committee, the House Naval Affairs Committee, and the House Ways and Means Committee.

Mercer has contributed fully as much to the advancement of education as to government. One of the two leading educational philosophers in America, Dr. William H. Kilpatrick, is a Mercer alumnus and for-

WESLEYAN FEMALE COLLEGE, Macon

mer president of the institution. One of the leading sociologists, Dr. William F. Ogburn, is a Mercer alumnus. Both the chancellor and the vice-chancellor of the University System of Georgia, and eight other Georgia college presidents, are Mercer alumni. So are hundreds of county superintendents, school principals, and teachers in the public schools of Georgia.

Directly to the ministry, and indirectly to the profession of medicine, Mercer also has contributed and continues to contribute greatly. Mercer alumni exert a Southwide leadership in denominational affairs. Other Mercer alumni, after basic training in academic and premedical fields, have made fine records in medical schools; and many have gained eminence as general practitioners, consultant specialists, child welfare authorities, and administrators of medical institutions. For example, the present head of the United States Marine Hospital in Chicago is a Mercer graduate.

Mercer University, since its founding, has given educational opportunity to more than 17,000 alumni. In them, and in their services to a democratic society, it finds adequate cause for pride.

Current Biography, planned primarily for library use, has become increasingly popular with newspaper writers, radio announcers, and all types of readers who like to know "who's news and why."

WESLEYAN COLLEGE

S. L. AKERS
Macon

In 1836, when the city of Macon was only thirteen years old, the Georgia Female College was chartered by the State Legislature and empowered to grant to women "all such honors, degrees and licenses as are usually conferred in colleges and universities."

Only fifteen years before this time Ft. Hawkins, on the banks of the Ocmulgee River, was an important and necessary stronghold against the Indians. Milledgeville was unknown, its site still a wilderness. The first bridge across the Ocmulgee was built in 1826; the first church in Macon was completed in 1828. In 1834, however, Macon considered herself quite a city, with a population of over 3,000; three new banks were in operation, cotton was selling at 12 to 16½ cents per pound, eight small steamers traveled between Macon and Darien, and six daily stagecoaches stopped in the city.

It was the psychologic moment for the founding of a woman's college. Far-seeing men and women had been advocating it since 1825, when a bill to establish a "public seat of learning in this State for the education of women" was presented in the Legislature. This bill was defeated with

such argument as that higher education would make a woman less "womanly," that her place was in the home, that she was less capable of learning than men.

Alexander Stephens himself, then a young lawyer, championed the 1836 bill in the Legislature, and on December 23, just before adjournment, the leaders of the State passed the bill. An article in a current magazine of 1840 said: "The suggestion was novel—bold—a perfect marvel. For some the greeting of its announcement was a sneer."

The Georgia Female College, however, survived their sneers and criticisms, survived one financial panic only a year after its charter was granted, was one of the few Southern colleges to survive the War of the 1860's without closing its doors, survived a serious financial crisis during the depression of the 1930's, and today, as Wesleyan College, nears the close of its 105th year.

The college of liberal arts, on a 170-acre campus seven miles from downtown Macon, provides a sound course of study leading to the A.B. degree. The conservatory of music, occupying the buildings on the original site of The Georgia Female College in the city, is the center of musical and artistic life of the whole community and offers work leading to degrees in the fine arts.

Wesleyan graduates by the thousands have gone out through the years to become the leaders in their communities all over this country and in foreign lands. The three sisters known all over the world as powerful forces in the Far East today—the Chinese sisters Soong—are alumnae of Wesleyan. In America the senior bacteriologist in the United States Public Health laboratories in Washington is a Wesleyan alumna, Dr. Sara Branham, who holds seven college degrees, among them the M.D. and Ph.D. degrees.

Most of the Macon doctors today as well as most doctors in the Southeast have ties with Wesleyan through some loved one. Many are the sons of Wesleyan alumnae; fifteen of the Macon doctors married Wesleyan alumnae; dozens have sisters or daughters who have come to Wesleyan. A few of those most closely associated with this college are: Dr. Olin H. Weaver, whose sister, Mrs. Ria Weaver Burks, was one of the most beloved teachers and "lady principals" Wesleyan ever had; Dr. T. L. Ross, Jr., is a grandson of Dr. James W. Roberts, former president of the college; his mother, his sister, and his wife all came to Wesleyan; Dr. J. P. Holmes' mother, sister, and daughter attended Wesleyan; Dr. C. H. Richardson's mother and wife; Dr. J. C. Anderson's wife and two daughters. Dr. Ernest Corn's wife is a great grandniece of Wesleyan's first president, the dynamic and brilliant George Foster Pierce, who was only 28 years of age when he assumed the presidency of the pioneer college for women, and who later became a Bishop of the Methodist Church.

The campuses of the college and conservatory at this season of the year are beauty spots of Macon. At the college, twelve new brick buildings stand on the rolling green lawns. There are wooded trails nearby for horseback riding, tennis courts, soccer fields, a swimming pool, and even a 9-hole golf course. At the conservatory, the main building, in which the original Wesleyan building is incorporated, has been newly refinished and papered throughout. There is still about this campus a pleasing atmosphere of the "old South" in its gracious days. Massive walls and high ceilings, lovely old hallways remind one of the past, while about the studios and walks gather young people by the hundreds who take part in the newly organized public school orchestra.

At the college is a collection of 75 paintings and pieces of sculpture which have been given to Wesleyan by the artists themselves during the past six years, through the influence of one alumna, Mrs. H. E. Ogden Campbell, of New York. There are also three valuable originals of the fifteenth and eighteenth centuries, gifts of Mr. Samuel Kress, of New York.

Through the recent benefactions of Mr. James H. Porter of Macon, both the college and conservatory have been enabled to take great strides. His gift of $150,000 to the campaign cleared the buildings of debt, and his contributions to the conservatory made

possible the addition of a new faculty member in charge of public school music, and the securing of a valuable collection of musical recordings for the musical library.

Toward the close of his career as a statesman, Alexander H. Stephens, vice-president of the Confederacy, remarked that he considered among the most worthwhile things he had ever done, his championship of Wesleyan in the State Legislature. He added, "Whatever honor Georgia is entitled to . . . let this be the crowning point of her glory, that she took and holds the lead of female education in the world."

THE CITY OF MACON

LEE S. TRIMBLE, Manager,
The Chamber of Commerce
Macon

". . . Cities have always been fireplaces of civilization whence light radiated out into the dark cold world."—Parker.

As every effect must have a cause, there is a reason for the existence of every city or gathering of men. Few of them ever just happen, and these soon wither.

The site now occupied by the City of Macon was a gathering place two centuries before Columbus exerted his sailing ability over the Queen of Spain, persuading her to finance his voyage of discovery. Just as most communities are started, this was a crossroads where the ways of Indians on the march met—those from Florida, north toward the Great Lakes region, and those from the East to the West. Anyone interested in this prehistoric phase will find a visit to the Ocmulgee National Monument, just outside the city limits on the Dublin road, most interesting. Every Georgian should go there, at least once.

On the plateau along the Ocmulgee River is the former site of the Indian settlements, where the first white visitors found them, and, finding them in numbers, living on a permanent basis, soon set up a trading post. That site is still faintly discernible, located on the heights above the village, adjoining which is Fort Hawkins, reproduced and lifelike as used in those early days. That, too, deserves a visit.

The white settlers gathered, settling on the east bank of the Ocmulgee River. The lands between the Ocmulgee and the Flint rivers were opened for settlement by the whites in 1821. Immediately after this the Georgia Legislature passed an Act providing that a town or city be laid out on the western bank of the Ocmulgee, "at some convenient and suitable place near the bank thereof, to be called and known by the name of Macon." This was in honor of a noted and brilliant statesman from North Carolina, who was a national figure of that day.

There is much more to the story, duly recorded and available to the student. From those pioneer days of log houses and primitive ways, Macon has evolved as other cities have. Thanks are due those early planners for the wide streets and parks that characterize Macon, for they built better than they knew. In another respect these first citizens showed rare foresight, and that in projecting a college for women, now Wesleyan, the first in the world to grant diplomas to women. This happened in 1836, an example of advanced thought with action that made history, and assured Macon of a permanent place in the story of the progress of women.

Mercer University is also more than a century old, but its beginning was at Penfield, Georgia, having been moved to Macon later. But the possession of two institutions of higher learning through all the years, brought to Macon a heritage of culture that has been an asset of incalculable value.

This virtue of favorable location for a city has remained an asset, greater now than ever, as civilization advances. Macon is within a few miles of both geographic and population centers of the State. Thus it is easy of access to all the people of the State, more readily reached than any other city. It is also in almost the exact center of the area covered by the states of Tennessee, the Carolinas, Georgia, Florida, Alabama and Mississippi. Thus Macon has location supreme, and has only to live up to natural opportunities.

MUNICIPAL AUDITORIUM, Macon

Where the Ninety-Second Annual Session of the Medical Association of Georgia will be held May 13-16, 1941

Macon grew and flourished as did the nation until the War Between the States, after which it fared with the South. Still, good progress was made until about 1925, when a series of economic blows were sustained that kept the growth about static until after 1935.

The Macon of today is advancing on all fronts—population, industries, trade, transportation, and service facilities of all kinds. If a frontier is a place where the natural advantages or resources or both have not yet been utilized, Macon is still a frontier under that description, and will show vast progress in the next decade or score of years, barring providential barriers.

Even as the Indians chose this spot as one suitable for the gathering for tribal functions, so do the people of Georgia and the Southeast come to Macon today. And, as the virtues of the city become known, and as it lives up to its God-given opportunities, so will others come, and they will be made welcome, whether to visit or to remain as citizens.

TWO CASES OF SKIN RASH FROM DEXTRIN USED AS ADHESIVE ON TAX STAMPS

Two cases of a skin rash due to the dextrin used as an adhesive on tax stamps are reported by J. D. Walters, M.D., and E. C. Stern, M.D., Cleveland, in *The Journal of the American Medical Association* for April 5.

The 2 patients affixed the stamps by hand to packaged goods. They both recovered quickly when long sleeved garments were used at work, when the containers of the water for moistening the stamps were washed frequently and when the hands and cloths used to wipe away excess moisture from the stamped goods were rinsed frequently in running water.

Discussing adherents on labels, stamps and other gummed articles, the authors say: "It is a fact that dextrin products used in numerous occupations, such as paper hanging and bookbinding, can often produce a dermatitis (skin rash). It is interesting to note, also, that the adherent surface of the United States postage stamps has an 85 per cent dextrin content."

More important than the recent revolutionary developments in the technic of anesthesia is the realization that the field is intensely complicated, requiring the balanced judgment of highly trained medical men, McKinnie L. Phelps, M.D., New York, declares in *Hygeia, The Health Magazine.*

THE PRESIDENT'S PAGE

MACON SESSION OF THE ASSOCIATION; MEDICAL NEEDS OF THE NATIONAL DEFENSE PROGRAM MUST BE MET; SCARCITY OF PHYSICIANS IN RURAL AREAS; MORE PHYSICIANS MUST BE EDUCATED BY GEORGIA'S MEDICAL SCHOOLS FOR PRACTICE IN GEORGIA.

Our State Association meets in Macon May 13-16. Ninety-two years ago the first State convention of our Georgia doctors was held in that city. In many respects the entire nation has changed since that time.

At that time this was a rural nation; now it is predominantly urban. There has been a mass movement of people from the country to the cities, and this has affected the doctors as well as other groups of people. In 1849 most of the doctors of Georgia were in rural communities, but now the picture has changed entirely. The scarcity of doctors in rural areas has long been known and talked about, but the present emergency, caused by the war, makes it an acute problem.

This problem was brought about by the fact that a number of doctors in the small towns and rural areas were members of the Medical Reserve Corps, and many of them have been called to the colors. This has, in some instances, worked a real hardship on the civilian population.

In some counties in Georgia there is only one doctor; in other counties, two or three or four. In one of these counties there are 9,000 people, whereas in some of our cities there is one doctor to 350 people. Such unequal distribution causes a problem that is hard to solve. The Army must have medical men, but the civilian population must not be allowed to suffer.

Of course, a large percentage of the physicians who go to the Army go from cities, but, of necessity, a much larger percentage will have to go from the cities where there is one doctor to 350 population.

It seems to me that the doctors who could best be spared are the second-year or senior interns and residents in hospitals. If the larger hospitals in the State would send their senior interns and residents, it would almost meet the needs of the Army so far as Georgia's quota is concerned. Necessarily it would be a hardship to spare these interns, but it would probably cause less distress, taking everything into consideration, to send these men than to send older doctors. These young men, as a rule, have no families, no great expense, and no fixed clientele dependent on their services, and they could continue their training and would suit the Army and Navy better than would most of the older doctors. Of course, many senior doctors will have to go to fill the positions that require men of experience.

The hospitals could get along without the senior interns, not as well perhaps as before, but it could be done. As an example of the great increase in interns over the number at the beginning of the war twenty years ago, at the hospital in which I was resident at that time there were sixteen interns; now there are ninety-six interns and residents, with a bed increase of only two hundred; an increase of eighty interns and an increase in patients of only two hundred.

Disregarding the present emergency, the number of rural physicians should be increased. Georgia could very easily absorb 33 1/3 per cent increase in physicians graduated from our medical schools in Georgia yearly. This situation could be remedied if our schools were equipped to graduate this many more students. The University of Georgia should be enlarged immediately with State and Federal funds to take care of this emergency. If this new group of students were given scholarships similar to the plan recently introduced as a bill in the Georgia Legislature, contracting these men to go back to the rural areas, this problem would be solved. And unless this situation is remedied it will cause irregular practitioners to move to the country or possibly cause the Federal Government to institute some measures to try to help these communities which would prove very distasteful to us.

J. C. PATTERSON, M.D.

THE FOUNDING OF THE MEDICAL ASSOCIATION OF GEORGIA

Allen H. Bunce, M.D.
Atlanta

It was the year 1849. Queen Victoria ruled Britannia. "Old Rough and Ready" Zachary Taylor sat in the White House. Winfield Scott had defeated Santa Ana in a series of bloody battles, captured Mexico City and acquired the territory now known as California, Utah and New Mexico. Gold had just been discovered in California and the tragic trek of the 100,000 "forty-niners" was at full tide. Webster, Clay, Calhoun, Stephen A. Douglas and Jefferson Davis were at the height of their heated debates in Washington. Morse's telegraph line had been completed recently between Washington and Baltimore. Crawford W. Long's discovery of the anesthetic properties of ether was becoming widely used to the great relief of suffering humanity.

Georgia boasted of nearly 900,000 souls over half of whom were slaves. George W. Towns sat in Milledgeville as Governor. More railroad mileage existed in Georgia than in any other state of the Union, and the State had the greatest mileage in the world under one management. Savannah and Augusta were the oldest and largest centers of population, education and culture. Macon, the railroad center of the State, had a population of less than 5,000 nearly half of whom consisted of slaves. Atlanta was only a village, having just been established as Terminus in 1845.

The Southern Medical and Surgical Journal, established at Augusta, in 1839, by Dr. Milton Antony, carried the following suggestion in its February, 1849 issue, under the heading "Medical Intelligence:"

"To the Physicians of Georgia.—The Faculty of the Medical College of Georgia, suggest to the medical profession of the State, the propriety of organizing an association. Since the institution of the National or American Medical Association, our sister States, Alabama and South Carolina, have taken action on the subject. It is therefore proposed to call a convention of the physicians of Georgia, to be held in the City of Augusta, on Tuesday the 20th of February next, then to adopt such measures for the improvement and benefit of the profession as they may deem proper.

"The Georgia Rail Road has promptly reduced its fare to one-half, for all members of the profession coming to the convention, and it is presumed that the other rail roads will do the same.

"Editors favorable to the above object will please insert this notice."

That the suggestion as to the place of meeting of the proposed convention did not meet with unanimous approval is shown by the following notice which again appeared under the caption "Medical Intelligence" in the March (1849) issue of the Southern Medical and Surgical Journal:

"*The State Medical Convention.*—After the notice issued by the Faculty of the Medical College of Georgia, and published in our last No., for the physicians of the State to assemble in Augusta on the 20th of February, to organize a Medical Association, the Georgia Medical Society (of Savannah) made a suggestion for the meeting to be held in Macon on the 20th of March. This was soon followed by an article in one of the newspapers of Savannah, stating the change of place and time of the proposed convention of the physicians of the State.

"The Faculty, desirous of unanimity on the subject, accordingly issued a circular and addressed it to all the Georgia subscribers of the Journal, stating their cheerful acquiescence in the suggestions of the Medical Society of Savannah. The meeting, therefore, of the physicians of the State, is called for the 20th of this month, (March), in the city of Macon.

"The Georgia Rail-road, the State Rail-road, and the Macon and Western Rail-road companies, have each reduced the fare one-half to all attending the contemplated convention of physicians at Macon. From the Central Rail-road Company we have received no reply from the physicians of Savannah who were requested to make application—but doubt not the same arrangement has been or will be made. It is understood that the signature of the president of the Association will secure a free return passage.

"As our name has been associated with the effort to get up this convention of the profession of the State, and as we shall in all probability be prevented attending the meeting, we throw out the following hasty suggestions to those who may be present on the interesting and important occasion:

"The notice is addressed to the physicians of the State of Georgia. In the organization of the meeting, each county should be called alphabetically and the representatives thus registered. We presume all regular practitioners in good standing, having a diploma or not, are included in the call. But every one, even if he has a diploma, and we care not from what college, who is at present engaged in the practice of any exclusive or special system of medicine, ought to be excluded. Of this, however, the meeting will be fully competent to determine. There should be a registration of all the regular physicians of Georgia.

"Action should be taken at this meeting on the pro-

ceedings of the National Medical Association.

"Our indigenous medical Botany ought to be investigated.

"The general and rapidly increasing prescriptions by apothecaries and druggists ought, if possible, to be checked or prohibited.

"A legislative enactment prohibiting the sale or use of any nostrum, which has not the composition fully and accurately described accompanying it, deserves the consideration of the physicians of the State.

"The subjects of medical education, the lengthening the course of instruction in our Medical Colleges, the support of a Medical Journal, etc., etc., will, of course, claim a considerable time of this body of the profession.

"The call of the convention in Macon during the progress of the course of lectures, will of course, prevent the Faculty of our College attending as a body, or all of us, as individuals; still a delegation will be sent to the meeting."

Accordingly seventy-five physicians met in the Hall of the Tomichichi Division, Sons of Temperance, in Macon on the morning of March 20, 1849 "in pursuance of a call from the Medical College of the State of Georgia and the Georgia Medical Society of Savannah." The convention was organized by the election of temporary officers and the "appointment of a committee to draft a Constitution and By-Laws for the permanent organization of a State Medical Society. The convention then adjourned until 3 o'clock, P.M."

When the convention reassembled, the chairman of the committee, Dr. R. D. Arnold, of Chatham, submitted its report which, with a few minor changes, was unanimously adopted. Whereupon the convention resolved itself into the "Medical Society of the State of Georgia" and proceeded with the election of officers. Those elected were:

Lewis D. Ford, M.D., of Augusta, President.

R. D. Arnold, M.D., of Savannah, 1st Vice President.

Thomas R. Lamar, M.D., of Macon, 2nd Vice President.

James M. Green, M.D., of Macon, Corresponding Secretary.

Chas. T. Quintard, M.D., of Macon, Recording Secretary.

S. W. Burney, M.D., of Monroe County, Treasurer.

The next business presenting itself was the election of delegates to the American Medical Association. Upon ballot the following gentlemen were elected:

Thomas Hoxey, M.D.; T. F. Green, M.D.; H. J. Ogilby, M.D.; I. E. Dupree, M.D.; E. L. Strohecker; M.D.; W. B. Stephens, M.D.; Robert Campbell, M.D.

"The President stated that he had received a telegraphic dispatch, requiring his presence in Augusta; he would therefore be obliged to leave the city in the morning." Thus we see that Georgia was already receiving the benefits of Morse's invention.

On the second day Dr. R. D. Arnold, 1st Vice President, presided. Several resolutions were adopted, one of which "Resolved, That the attention of physicians in this State is respectfully directed to the subject of keeping records of Physiological, Pathological and Meteorological phenomena." Another, and the most important, was a resolution introduced by Dr. Arnold, himself, and unanimously adopted. The resolution follows:

"Whereas, it is important that evidence in cases of pedigree and descent should be perpetuated, for the purpose of a more easy enforcement of the rights of the people of this State: and whereas, statistical details of the diseases, births and deaths are important, alike to the political economist and the medical philosopher, and efforts to procure such information have been the object of legislation in every enlightened government: and whereas, the American Medical Association, representing the highest intelligence of the Medical Profession in the United States, has undertaken to obtain legislation on this subject in every State in the Union:

"*Resolved*, That this Society fully concur in the great importance of the subject, and this Society to earnestly recommend to the General Assembly of the State of Georgia to pass a bill for the uniform Registration of Births, Marriages and Deaths occurring annually in the limits of the State.

"*Resolved*, That a certified copy of the above preamble and resolution be forwarded, at the next session of the Legislature, to the existing Governor of the State and to the President of the Senate and the Speaker of the House of Representatives."

Macon was chosen for the meeting place of the Society in 1850. The secretaries of the Society were authorized "to have printed five hundred copies of a pamphlet containing the proceedings of the convention and Society, the Constitution and By-Laws and also the Code of Ethics adopted."

Thus came into being the "Medical Society of the State of Georgia," now known as the Medical Association of Georgia.

Georgia

PROCEEDINGS

OF THE

STATE MEDICAL CONVENTION,

HELD

IN MACON, MARCH, 1849,

AND

CONSTITUTION OF THE MEDICAL SOCIETY

OF THE

STATE OF GEORGIA.

850

Stat Case
850

MACON:
PRINTED BY S. ROSE & CO.
1849.

PROCEEDINGS

OF THE

STATE MEDICAL CONVENTION.

IN pursuance of a call from the Medical College of the State of Georgia and the Georgia Medical Society of Savannah, addressed to the Practitioners of Medicine throughout the State, they assembled in Convention, in the city of Macon, on Tuesday the 20th of March, 1849.

On motion of Dr. E. L. STROHECKER, the Convention was temporarily organized by calling Dr. THOMAS HOXEY, of Columbus, to the Chair, and appointing Dr. S. W. BURNEY Secretary.

On motion of Dr. R. D. ARNOLD, the members presented their names to the Secretary, and were enrolled, as follows:

Baker County—R. Q. Dickenson, W. L. Davis.
Baldwin " T. F. Green.
Bibb " M. A. Franklin, C. T. Quintard, James M. Green, E. L. Strohecker, H. K. Green, C. B. Nottingham, Charles Thompson, J. B. Wiley, R. McGoldrick, Jos. LeConte, J. C. Gilbert, W. G. Little, J. R. Boon, Thos. R. Lamar, J. W. Benson.
Burke " W. C. Musgrove.
Chatham " R. D. Arnold, Thomas Stewardson.
Clark " W. L. Jones.

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Cobb County,	—	William N. King.
Crawford	"	J. D. Smith.
Dooly	"	W. M. Stokes, D. J. Bothwell, T. T. Williamson.
Fayette	"	B. O. Jones, J. S. Holliday, R. T. Stell.
Floyd	"	J. R. Alexander.
Gwinnett	"	James M. Gordon.
Henry	"	C. I. Fall.
Houston	"	J. C. Gibson, Charles West, G. F. Cooper, E. Fitzgerald, D. B. O'Sullivan.
Jasper	"	W. D. Maddox, A. A. McKee.
Jones	"	W. S. Lightfoot, Asbury Kingman.
Lee	"	M. N. B. Outlaw, J. Hilsman.
Madison	"	H. R. J. Long.
Meriwether	"	J. W. Hewell.
Monroe	"	W. B. Stephens, J. C. Winn, J. B. Searcy, H. L. Battle, S. W. Burney, George A. Winn.
Morgan	"	H. J. Ogilby.
Muscogee	"	Thomas Hoxey, William Flewellen, F. A. Stanford.
Oglethorpe	"	Willis Willingham, B. V. Willingham.
Pike	"	C. F. Redding, N. B. Johnson, E. F. Knott, J. G. Westmoreland.
Richmond	"	L. D. Ford, Robert Campbell.
Stewart	"	G. M. Cade.
Sumter	"	J. D. Gregory.
Troup	"	W. P. Beasley.
Twiggs	"	I. E. Dupree, R. A. Nash, T. Jones, E. F. Way.
Upson	"	J. L. Cheney, A. B. Greene, Rich'd Oliver.
Washington	"	S. D. Brantly.

On motion of Dr. J. M. Green, the Chairman appointed a Committee, consisting of one from each county represented, to nominate Officers for the permanent organization of

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the Convention. The following gentlemen were appointed: Drs. J. M. Green, Dickenson, T. F. Green, Lamar, Musgrove, Stewardson, W. L. Jones, W. N. King, J. D. Smith, Bothwell, Halliday, Alexander, Gordon, Fall, West, Maddox, Kingman, Hillsman, Long, Westmoreland, Ford, Gregory, Beasley, Dupree, Brantly and A. B. Greene.

The Committee retired, and upon returning reported, through its Chairman, the following, viz:

LEWIS D. FORD, M. D., of Augusta, President.
R. D. ARNOLD, M. D., of Savannah, 1st V. President.
T. R. LAMAR, M. D., of Macon, 2d V. President.
JAMES M. GREEN, M. D. } of Macon, Secretaries.
C. T. QUINTARD, M. D. }

Dr. J. M. GREEN moved the appointment of a committee to inform Dr. FORD of his election, and wait upon him to the Chair. Dr. T. F. Green, of Milledgeville, and Dr. Charles Thompson, of Macon, were appointed by the Chairman.

After the President had been conducted to his seat, the Vice Presidents and Secretaries took their respective places, and the President made some preliminary remarks, setting forth the importance and objects of the Convention.

The Convention being now fully organized and ready for business, Dr. ARNOLD of Savannah took the floor, and in a brief speech stated the importance and necessity of organization and centralization, for the advancement of the Profession, and moved the appointment of a Committee to draft a Constitution and By-Laws for the permanent organization of a State Medical Society.

This motion was seconded by Dr. J. M. GREEN, and unanimously adopted.

A vote was taken as to the number of which this Committee should consist, and it was decided that seven should be appointed. The President accordingly designated the following:

Dr. R. D. ARNOLD, of Chatham; Dr. J. M. GREEN, of

Bibb; Dr. Thos. Hoxey, of Muscogee; Dr. Chas. West, of Houston; Dr. H. J. Ogilby, of Morgan; Dr. R. Q. Dickenson, of Baker, and Dr. Gordon, of Gwinnett.

A motion was made, and carried unanimously, that Dr. DeGraffenreid of Florida be invited to a seat in the Convention.

A motion was also adopted that the Editors of the City Journals be invited to a seat in the Covention.

The Convention then adjourned until 3 o'clock, P. M.

AFTERNOON SESSION.

Convention re-assembled at 3 o'clock, P. M. The President having taken his seat, the Secretary called the roll.

The Committee appointed to draft a Constitution and By-Laws announced, through its Chairman, that they were prepared to report.*

The Report of the Committee was received—when a motion was made to act on the articles separately. The 1st and 2d articles were adopted. On reading the 3d article, Dr. Hoxey moved to insert the word "hereafter," after the words "qualified can," occurring in the 2d section. Adopted. All the other articles of the Constitution, and all the By-Laws, were, after some discussion, adopted unanimously.

Dr. C. Thompson, of Macon, then presented the following:

Resolved, That the Convention do now resolve itself into the "*Medical Society of the State of Georgia,*" and that the Officers of the Convention continue to act as Officers of the Society until an election can be had.

* Dr. Arnold, in submitting the report, stated that no originality was assumed or aimed at by the Committee, in the draft of a Constitution and By-Laws they now had the honor to report.

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This being adopted, the members prepared ballots—upon counting of which, it appeared that the following gentlemen were elected:

LEWIS D. FORD, M. D., of Augusta, President.
R. D. ARNOLD, M. D., of Savannah, 1st Vice Pres't.
THOMAS R. LAMAR, M. D., of Macon, 2d " "
JAMES M. GREEN, M. D., of Macon, Cor. Secretary.
CHAS. T. QUINTARD, M. D. " Rec. "

There being no election for Treasurer, another ballot was ordered, and on counting out, it appeared that S. W. BURNEY, M. D., of Monroe county, was duly elected.

The Society then adjourned until 8 o'clock, P. M.

LEWIS D. FORD, *President.*

J. M. GREEN, C. T. QUINTARD, } *Secretaries.*

MEDICAL SOCIETY OF GEORGIA.

The Society met pursuant to adjournment. The first business presenting itself was the election of delegates to the American Medical Association. The members of the Society cast their ballots; upon counting which, the President announced the election of the following gentlemen, viz:

THOMAS HOXEY, M. D. I. E. DUPREE, M. D.
T. F. GREEN, M. D. E. L. STROHECKER, M. D.
H. J. OGILBY, M. D. W. B. STEPHENS, M. D.
ROBERT CAMPBELL, M. D.

The following resolution was presented by Dr. HOXEY:

Resolved, That in the event that any gentleman elected as a delegate of this Society should be unable to attend said

National Association, notice of the same shall be given to the President by the said delegate, and that the President be authorized to fill said vacancy.

This was adopted.

Dr. Stewardson moved an amendment to the Constitution, by striking out the words "or who prescribes a remedy, without knowing its composition," occurring in the 3d section of the 6th article of the Constitution. After a short discussion the amendment was accepted by the Society.

The following resolution, presented by Dr. Strohecker, was adopted:

Resolved, That Dr. Arnold be requested to deliver an address at the next meeting of the Medical Society of the State of Georgia.

The question which next came up was the selection of a place for the meeting of the Society in 1850. Dr. Thompson proposed Macon, as, from its central position and accessibility, a larger attendance might be expected. This being urged by Dr. Thos. Hoxey and others, was finally carried.

On motion of Dr. West, the President appointed the following gentlemen a committee to make proper arrangements for the meeting of this Society: Drs. J. B. Wiley, Joseph LeConte, Charles Thompson, J. C. Gilbert and C. B. Nottingham.

The President stated that he had received a telegraphic despatch, requiring his presence in Augusta; he would therefore be obliged to leave the city in the morning. After expressing his thanks to the Society for the honor of his election as President, and congratulating the members of the Society on the formation of the Medical Society of the State of Georgia, the unanimity which had marked its first session, and the happy influence it would naturally exert upon the profession generally, the Society adjourned to meet again at 10 o'clock the following morning.

SECOND DAY.

At the appointed time the meeting was called to order by the 1st Vice President. After the call of the roll, the minutes were read by the Secretary, and confirmed.

A letter, received from Dr. ZELOTES H. MASON, requesting the enrolment of his name as a member of this Society, was read by the Secretary. On motion, it was resolved that, on complying with the requisitions of the Constitution, Dr. Mason be received as an original member of the Society.

Dr. W. L. JONES offered the following preamble and resolution, which were adopted:

Whereas, the great desideratum for establishing the Laws of the Phenomena of Life and Death, of Health and Disease, is an immense collection of *facts*; and the determination of these Laws being the only sure foundation of Medical Science, therefore

Resolved, That the attention of Physicians in this State is respectfully directed to the subject of keeping records of Physiological, Pathological and Meteorological phenomena, and that it be recommended to the Auxiliary Societies to take measures for obtaining full and accurate data in reference to the diseases of their district; also records of the states of the thermometer, barometer, atmospheric electricity, thunder-storms, rains, clouds, winds and dew-point, during each day of the year. Also, to prepare Geographical and Geological Maps of their districts, containing descriptions of the face of the country, as relates to hills and valleys, land and water; also, a description of the soils, of the nature of the vegetation, and of the relative abundance of cleared and wood-lands: and that such Records and Maps be sent to the Corresponding Secretary, to be deposited by him in the archives of this Society.

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Dr. Arnold requested Dr. West to take the Chair, and presented the following preamble and resolutions:

Whereas, it is important that evidence in cases of pedigree and descent should be perpetuated, for the purpose of a more easy enforcement of the rights of the people of this State: and whereas, statistical details of the diseases, births and deaths are important, alike to the political economist and the medical philosopher, and efforts to procure such information have been the object of legislation in every enlightened government: And whereas, the American Medical Association, representing the highest intelligence of the Medical Profession in the United States, has undertaken to obtain legislation on this subject in every State in the Union:

Resolved, That this Society fully concur in the great importance of the subject, and this Society do earnestly recommend to the General Assembly of the State of Georgia to pass a bill for the uniform Registration of Births, Marriages and Deaths occurring annually in the limits of the State.

Resolved, That a certified copy of the above preamble and resolution be forwarded, at the next session of the Legislature, to the existing Governor of the State and to the President of the Senate and the Speaker of the House of Representatives.

The preamble and resolutions of Dr. Arnold were unanimously concurred in and adopted. And on motion of Dr. James M. Green, it was

Resolved, That a Committee of five, of which Dr. Arnold shall be chairman, be appointed to memorialise the Legislature on the subject.

The following Committee was appointed: Drs. R. D. Arnold, E. L. Strohecker, H. J. Ogilby, G. A. Winn and G. F. Cooper.

Dr. James M. Green introduced the following:

Resolved, That a committee be appointed, consisting of one from each Congressional District, of which the President of

the Society shall be Chairman, to address the Profession at large upon the expediency of organizing Auxiliary Societies, registering the names of all regular Practitioners of Medicine, keeping records of the state of the weather, notes of disease, and other matters of importance to the profession.

The President appointed the following: 8th District, Dr. L. D. Ford; 1st, Dr. Thomas Stewardson; 2d, Dr. Charles West; 3d, Dr. E. F. Knott; 4th, Dr. W. P. Beasley; 5th, Dr. Wm. N. King; 6th, Dr. W. L. Jones; 7th, Dr. Asbury Kingman.

The following resolution, offered by Dr. GORDON of Gwinnett, was adopted:

Resolved, That we have the utmost confidence in the integrity and faithful ability with which the Southern Medical and Surgical Journal is conducted, and most cheerfully recommend it to the patronage of the Medical profession.

Dr. THOS. F. GREEN offered the following:

Resolved, That the Secretaries of the Society be authorized to have printed five hundred copies of a pamphlet containing the proceedings of the Convention and Society, the Constitution and By-Laws, and also the Code of Ethics adopted.

Resolved, That the Treasurer be authorized to pay to the order of said Secretaries such sum of money as may be necessary for the accomplishment of these objects.

Carried *nem. diss.*

The following resolution, offered by Dr. STEWARDSON and seconded by Dr. WEST, was unanimously adopted:

Resolved, That the thanks of this Society be presented to the Medical Society of Macon for its promptitude and attention in making proper arrangements for the meeting of the Convention and Society.

Dr. CHAS. THOMPSON offered the following resolutions, which were seconded by Dr. KINGMAN:

Resolved, That the Medical Society of Georgia present

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its thanks to the Officers of the various Railroad Companies for the kindness and liberality they have extended to the members of this Society, and that the Corresponding Secretary be instructed to address a copy of this resolution to the President of each Company.

Resolved, That the thanks of the Society be presented to Tomochichi Division, Sons of Temperance, for the use of their Hall, and that the Corresponding Secretary address them a copy of this resolution.

Resolved, That the Medical Society of the State of Georgia present its thanks to the Officers of the Convention and Society for the courtesy, impartiality and ability with which they have discharged their several duties.

Carried *nem. diss.*

Upon motion of Dr. Stewardson, the Society then adjourned.

CHAS. T. QUINTARD, M. D.
Recording Secretary.

CONSTITUTION

OF THE

MEDICAL SOCIETY OF THE STATE OF GEORGIA.

ADOPTED MARCH 20, 1849.

ARTICLE I.

TITLE OF THE SOCIETY.

The name and style of this Society shall be "*The Medical Society of the State of Georgia.*"

ARTICLE II.

OBJECTS OF THE SOCIETY.

The objects of this Society shall be the advancement of Medical knowledge—the elevation of professional character—the protection of the interests of its members—the extension of the bounds of Medical Science, and the promotion of all measures adapted to relieve suffering humanity and to protect the lives and improve the health of the community.

ARTICLE III.

MEMBERS OF THE SOCIETY.

§ 1. The Society shall consist of every person now present as a member of the State Medical Convention, who is a graduate of a respectable Medical College, or who may be authorized to practice by the legislative act of 1839 re-constituting the Medical Board of the State, and who shall conform to the regulations of the Society.

§ 2. Any Member of the Profession, thus qualified, can hereafter, on written application to the Society, through the Corresponding Secretary, be admitted to it by a vote of two-thirds of the members present.

ARTICLE IV.

OF THE OFFICERS.

§ 1. The Officers of the Society shall be a President, two Vice Presidents, a Corresponding and a Recording Secretary, and a Treasurer.

§ 2. Each Officer shall be elected annually, by ballot, on a general ticket, and shall serve for one year, or until another be elected to succeed him.

ARTICLE V.

DUTIES OF OFFICERS.

§ 1. The President shall preside at the meetings, preserve order, and perform such other duties as custom and parliamentary usage may require. He shall not be eligible two terms in succession.

§ 2. The Vice Presidents, when called upon, shall assist the President in the performance of his duties, and during the absence of, or at the request of the President, one of them shall officiate in his place.

§ 3. The Corresponding Secretary shall conduct the correspondence and perform such other duties as usually appertain to that office.

§ 4. The Recording Secretary shall keep correct minutes of the proceedings, and when approved, shall fairly transcribe the same in a book to be kept for that purpose. He shall have charge of all papers belonging to the Society, other than those appertaining to the Treasurer and Corresponding Secretary, and give due notice of the annual meetings.

§ 5. The Treasurer shall receive all monies belonging to the Society, and disburse them as directed, preserving vouchers for the same. He shall annually present a statement of the finances of the Society, which shall be referred to a committee to be audited.

ARTICLE VI.

OF AUXILIARY SOCIETIES.

§ 1. The members of the Profession in any county, or in any two or more adjacent counties, where there is not a sufficient number in one county, in this State, who desire so to do, may form themselves into an Auxiliary Society: *Provided*, that public notice of the proposed meeting be given, and that all the regular members of the profession in said county or counties be invited to join therein; and said Society may adopt rules for their government, provided the same do not contravene those of the State Society—may elect officers, and do all such acts as may be necessary to carry out the objects of their association.

§ 2. No one shall be admitted a member of an Auxiliary Society unless he is either a graduate in Medicine, of some respectable Medical School, or has a license to practice from the Medical Board of Georgia, or is recognised as a practitioner by the act reviving that body, passed in 1839; and who, moreover, is in good moral and professional standing in the place where he resides, and is a regular practitioner.

§ 3. Any Physician who shall procure a patent for a remedy or instrument of surgery, or who uses in his practice any secret remedy or nostrum, or who shall hereafter give a certificate in favor of such instrument or remedy, shall be disqualified from becoming a member of an Auxiliary Society, and consequently of the State Society.

§ 4. As soon as an Auxiliary Society is organized, the Secretary thereof shall transmit to the Corresponding Secretary of the State Society a copy of their rules and regulations, with the names of the officers and members.

§ 5. Every Auxiliary Society shall enforce the observance, by its members, of the Code of Ethics adopted by the State Society; and they shall be authorized to censure or expel any member convicted of violating its provisions.

§ 6. The Auxiliary Societies shall report annually to the State Society a list of their members and officers, any new rules they may adopt, and such other matters as they may deem interesting.

§ 7. The Auxiliary Societies shall hold at least two meetings in every year.

ARTICLE VII.

MEETINGS OF THE SOCIETY.

§ 1. The Society shall hold an Annual Meeting on the second Wednesday in the month of April of each year.

§ 2. The place of meeting shall be determined, for each succeeding year, by a vote of the Society.

ARTICLE VIII.

OF THE FUNDS.

Means for defraying the expenses of the annual meetings and current expenses of the Society may be raised by an annual assessment on its members, of not more than two dollars each.

ARTICLE IX.

CODE OF ETHICS.

This Society adopts, as a part of its regulations, the Code of Ethics of the American Medical Association.

ARTICLE X.

ALTERATIONS.

No alteration or amendment of this Constitution shall be made, unless it receives the vote of two-thirds of the members present.

BY-LAWS.

ORDER OF BUSINESS.

1st. The President, or, in his absence, one of the Vice Presidents, shall call to order; in case of the absence of all these officers, a Chairman *pro tem.* shall be appointed for that purpose.

2d. Calling the roll of members.

3d. Reading of the minutes.

4th. Election of Officers and Delegates to the American Medical Association.

5th. Any business which requires early consideration may be introduced.

6th. Reports from Auxiliary Societies.

7th. The Correspondence shall be read by the Corresponding Secretary.

8th. Written communications may be discussed.

9th. Oral communications may be made and discussed.

10th. Resolutions introducing new business.

11th. Selection of a place for the next meeting.

12th. Miscellaneous business.

REPORT OF THE COMMITTEE

Appointed under the 6th Resolution, adopted by the National Medical Convention, which assembled in New-York, in May, 1846.

6th. *Resolved,* That it is expedient that the Medical Profession in the United States should be governed by the same Code of Medical Ethics, and that a Committee of seven be appointed to report a Code for that purpose, at a meeting to be held at Philadelphia, on the first Wednesday of May, 1847.

Committee—Drs. J. BELL, I. HAYS and G. EMERSON, of Philadelphia; W. W. MORRIS, Dover, Del.; T. C. DUNN, Newport, R. I.; A. CLARK, N. Y.; and R. D. ARNOLD, Savannah, Ga.

INTRODUCTION TO THE CODE OF MEDICAL ETHICS.

MEDICAL ETHICS, as a branch of general ethics, must rest on the basis of religion and morality. They comprise not only the duties, but also the rights of a physician; and, in this sense, they are identical with Medical Deontology—a term introduced by a late writer, who has taken the most comprehensive view of the subject.

In framing a code on this basis, we have the inestimable advantage of deducing its rules from the conduct of the many eminent physicians who have adorned the profession by their learning and their piety.—From the age of Hippocrates to the present time the annals of every civilized people contain abundant evidences of the devotedness of medical men to the relief of their fellow-creatures from pain and disease, regardless of the privation and danger, and not seldom obloquy, encountered in return; a sense of ethical obligations rising superior, in their minds, to considerations of personal advancement. Well and truly was it said by one of the most learned men of the last century, that the duties of a physician were never more beautifully exemplified than in the conduct of Hippocrates, nor more eloquently described than in his writings.

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We may here remark, that, if a state of probation be intended for moral discipline, there is, assuredly, much in the daily life of a physician to impart this salutary training, and to insure continuance in a course of self-denial, and, at the same time, of zealous and methodical efforts for the relief of the suffering and unfortunate, irrespective of rank or fortune, or of fortuitous elevation of any kind.

A few considerations on the legitimate range of medical ethics will serve as an appropriate introduction to the requisite rules for our guidance in the complex relations of professional life.

Every duty or obligation implies, both in equity and for its successful discharge, a corresponding right. As it is the duty of a physician to advise, so has he a right to be attentively and respectfully listened to. Being required to expose his health and life for the benefit of the community, he has a just claim, in return, on all its members, collectively and individually, for aid to carry out his measures, and for all possible tenderness and regard to prevent needlessly harassing calls on his services, and unnecessary exhaustion of his benevolent sympathies.

His zeal, talents, attainments and skill, are qualities which he holds in trust for the general good, and which cannot be prodigally spent, either through his own negligence or the inconsiderateness of others, without wrong and detriment both to himself and to them.

The greater the importance of the subject and the more deeply interested all are in the issue, the more necessary is it that the physician—he who performs the chief part, and in whose judgment and discretion, under Providence, life is secured and death turned aside—should be allowed the free use of his faculties, undisturbed by a querulous manner, and desponding, angry, or passionate interjections, under the plea of fear, or grief, or disappointment of cherished hopes, by the sick and their friends.

All persons privileged to enter the sick room, and the number ought to be very limited, are under equal obligations of reciprocal courtesy, kindness and respect; and, if any exception be admissible, it cannot be at the expenses of the physician. His position, purposes and proper efforts, eminently entitle him to, at least, the same respectful and considerate attentions that are paid, as a matter of course and apparently without constraint, to the clergyman who is admitted to administer spiritual consolation, and to the lawyer who comes to make the last will and testament.

Although professional duty requires of a physician that he should have such a control over himself as not to betray strong emotion in the presence of his patient, nor to be thrown off his guard by the querulousness or even rudeness of the latter, or of his friends at the

bedside, yet, and the fact ought to be generally known, many medical men, possessed of abundant attainments and resources, are so constitutionally timid and readily abashed as to lose much of their self-possession and usefulness at a critical moment, if opposition be abruptly interposed to any part of the plan which they are about devising for the benfit of their patients.

Medical ethics cannot be so divided as that one part shall obtain the full and proper force of moral obligations on physicians universally, and, at the same time, the other be construed in such a way as to free society from all restrictions in its conduct to them; leaving it to the caprice of the hour to determine whether the truly learned shall be overlooked in favor of ignorant pretenders—persons destitute alike of original talent and acquired fitness.

The choice is not indifferent, in an ethical point of view, besides its important bearing on the fate of the sick themselves, between the directness and sincerity of purpose, the honest zeal, the learning and impartial observations, accumulated from age to age for thousands of years, of the regularly initiated members of the medical profession, and the crooked devices and low arts for evidently selfish ends, the unsupported promises and reckless trials of interloping empirics, whose very announcement of the means by which they profess to perform their wonders are, for the most part, misleading and false, and, so far, fraudulent.

In thus deducing the rights of a physician from his duties, it is not meant to insist on such a correlative obligation, that the withholding of the right exonerates from the discharge of the duty. Short of the formal abandonment of the practice of his profession, no medical man can withhold his services from the requisition either of an individual or of the community, unless under circumstances of rare occurrence, in which his compliance would be not only unjust but degrading to himself, or to a professional brother, and so far diminish his future usefulness.

In the discharge of their duties to society, physicians must be ever ready and prompt to administer professional aid to all applicants, without prior stipulation of personal advantages to themselves.

On them devolves, in a peculiar manner, the task of noting all the circumstances affecting the public health, and of displaying skill and ingenuity in devising the best means for its protection.

With them rests, also, the solemn duty of furnishing accurate medical testimony in all cases of criminal accusation of violence, by which health is endangered and life destroyed, and in those other numerous ones involving the question of mental sanity and of moral and legal responsibility.

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On these subjects—Public Hygiene and Medical Jurisprudence—every medical man must be supposed to have prepared himself by study, observation, and the exercise of a sound judgment. They cannot be regarded in the light of accomplishments merely: they are an integral part of the science and practice of medicine.

It is a delicate and noble task, by the judicious application of Public Hygiene to prevent disease and prolong life, and thus to increase the productive industry, and, without assuming the office of moral and religious teaching, to add to the civilization of an entire people.

In the performance of this part of their duty, physicians are enabled to exhibit the close connection between hygiene and morals; since all the causes contributing to the former are nearly equally auxiliary to the latter.

Physicians, as conservators of the public health, are bound to bear emphatic testimony against quackery in all its forms, whether it appears with its usually effrontery, or masks itself under the garb of philanthropy and sometimes of religion itself.

By an anomaly in legislation and penal enactments, the laws, so stringent for the repression and punishment of fraud in general, and against attempts to sell poisonous substances for food, are silent, and of course inoperative, in the cases of both fraud and poisoning so extensively carried on by the host of quacks who infest the land.

The newspaper press, powerful in the correction of many abuses, is too ready, for the sake of lucre, to aid and abet the enormities of quackery. Honorable exceptions to the once general practice in this respect are becoming, happily, more numerous, and they might be more rapidly increased if physicians, when themselves free from all taint, were to direct the attention of editors and proprietors of newspapers, and of periodical works in general, to the moral bearings of the subject.

To those who, like physicians, can best see the extent of the evil, it is still more mortifying than in the instances already mentioned, to find members of other professions, and especially Ministers of the Gospel, so prone to give their countenance, and at times direct patronage, to medical empirics, both by their use of nostrums and by their certificates in favor of the absurd pretensions of these impostors.

The credulous, on these occasions, place themselves in the dilemma of bearing testimony either to a miracle or to an imposture: to a miracle, if one particular agent, and it often of known inertness or slight power, can cure all diseases, or even any one disease in all its stages; to an imposture, if the alledged cures are not made, as experience shows that they are not.

But by no class are quack medicines and nostrums so largely sold and distributed as by apothecaries, whose position towards physicians,

although it may not amount to actual affinity, is such that it ought, at least, to prevent them from entering into an actual, if not formally recognized alliance with empirics of every grade and degree of pretension.

Too frequently we meet with physicians who deem it a venial error, in ethics, to permit, and even to recommend, the use of a quack medicine or secret compound by their patients and friends. They forget that their toleration implies sanction of a recourse by the people generally to unknown, doubtful and conjectural fashions of medication; and that the credulous in this way soon become the victims of an endless succession of empirics. It must have been generally noticed, also, that they, whose faith is strongest in the most absurd pretensions of quackery, entertain the greatest skepticism towards regular and philosophic medicine.

Adverse alike to ethical propriety and to medical logic, are the various popular delusions which, like so many epidemics, have, in successive ages, excited the imagination with extravagant expectations of the cure of all diseases and the prolongation of life beyond its customary limits, by means of a single substance. Although it is not in the power of physicians to prevent, or always to arrest these delusions in their progress, yet it is incumbent on them, from their superior knowledge and better opportunities, as well as from their elevated vocation, steadily to refuse to extend to them the slightest countenance, still less support.

These delusions are sometimes manifested in the guise of a new and infallible system of medical practice,—the faith in which, among the excited believers, is usually in the inverse ratio of the amount of common sense evidence in its favour. Among the volunteer missionaries for its dissemination, it is painful to see members of the sacred profession, who, above all others, ought to keep aloof from vagaries of any description, and especially of those medical ones which are allied to empirical imposture.

The plea of good intention is not an adequate reason for the assumption of so grave a responsibility as the propagation of a theory and practice of medicine, of the real foundation and nature of which, the mere medical amateur must necessarily, from his want of opportunity for study, observation and careful comparison, be profoundly ignorant.

In their relations with the sick, physicians are bound, by every consideration of duty, to exercise the greatest kindness with the greatest circumspection; so that, whilst they make every allowance for impatience, irritation, and inconsistencies of manner and speech of the sufferers, and do their utmost to soothe and tranquilize, they shall, at

the same time, elicit from them, and the persons in their confidence, a revelation of all the circumstances connected with the probable origin of the diseases which they are called upon to treat.

Owing either to the confusion and, at times, obliquity of mind produced by the disease, or to considerations of false delicacy and shame, the truth is not always directly reached on these occasions; and hence the necessity, on the part of the physician, of a careful and minute investigation into both the physical and moral state of the patient.

A physician in attendance on a case, should avoid expensive complications and tedious ceremonials, as being beneath the dignity of true science and embarrassing to the patient and his family, whose troubles are already great.

In their intercourse with each other, physicians will best consult and secure their own self-respect and consideration from society in general, by a uniform courtesy and high-minded conduct towards their professional brethren. The confidence in his intellectual and moral worth, which each member of the profession is ambitious of obtaining for himself among his associates, ought to make him willing to place the same confidence in the worth of others.

Veracity, so requisite in all the relations of life, is a jewel of inestimable value in medical description and narrative, the lustre of which ought never to be tainted for a moment by even the breath of suspicion. Physicians are peculiarly enjoined, by every consideration of honor and of conscientious regard for the health and lives of their fellow beings, not to advance any statement unsupported by positive facts, nor to hazard an opinion or hypothesis that is not the result of deliberate inquiry into all the data and bearings of which the subject is capable.

Hasty generalization, paradox and fanciful conjectures, repudiated at all times by sound logic, are open to the severest reprehension on the still higher grounds of humanity and morals. Their tendency and practical operation cannot fail to be eminently mischievous.

Among medical men associated together for the performance of professional duties in public institutions, such as Medical Colleges, Hospitals and Dispensaries, there ought to exist, not only harmonious intercourse, but also a general harmony in doctrine and practice; so that neither students nor patients shall be perplexed, nor the medical community mortified by contradictory views of the theory of disease, if not of the means of curing it.

The right of free inquiry, common to all, does not imply the utterance of crude hypotheses, the use of figurative language, a straining after novelty for novelty's sake, and the involution of old truths for temporary effect and popularity, by medical writers and teachers. If,

therefore, they who are engaged in a common cause, and for the furtherance of a common object, could make an offering of the extreme, the doubtful, and the redundant, at the shrine of philosophical truth, the general harmony in medical teaching now desired, would be of easy attainment.

It is not enough, however, that the members of the medical profession be zealous, well-informed and self-denying, unless the social principle be cultivated by their seeking frequent intercourse with each other, and cultivating, reciprocally, friendly habits of acting in common.

By union alone can medical men hope to sustain the dignity and extend the usefulness of their profession. Among the chief means to bring about this desirable end, are frequent social meetings and regularly organized Societies; a part of whose beneficial operations would be an agreement on a suitable standard of medical education, and a code of medical ethics.

Greatly increased influence for the entire body of the profession will be acquired by a union for the purposes of common benefit and the general good; while to its members, individually, will be insured a more pleasant and harmonious intercourse one with another, and an avoidance of many heart-burnings and jealousies, which originate in misconception, through misrepresentation on the part of individuals in general society, of each other's disposition, motives and conduct.

In vain will physicians appeal to the intelligence and elevated feelings of the members of other professions, and of the better part of society in general, unless they be true to themselves, by a close adherence to their duties, and by firmly yet mildly insisting on their rights; and this not with a glimmering perception and faint avowal, but rather with a full understanding and firm conviction.

Impressed with the nobleness of their vocation, as trustees of science and almoners of benevolence and charity, physicians should use unceasing vigilance to prevent the introduction into their body of those who have not been prepared by a suitably preparatory moral and intellectual training.

No youth ought to be allowed to study medicine whose capacity, good conduct, and elementary knowledge are not equal, at least, to the common standard of academical acquirements.

Human life and human happiness must not be endangered by the incompetency of presumptuous pretenders. The greater the difficulties of medicine, as a science, and the more numerous the complications that embarrass in its practice, the more necessary is it that there should be minds of a high order and thorough cultivation to unravel its mysteries and to deduce scientific order from apparently empirical confusion.

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We are under the strongest ethical obligations to preserve the character which has been awarded by the most learned men and best judges of human nature, to the members of the medical profession, for general and extensive knowledge, great liberality and dignity of sentiment, and prompt effusions of beneficence.

In order that we may continue to merit these praises, every physician, within the circle of his acquaintance, should impress both fathers and sons with the range and variety of medical study, and with the necessity of those who desire to engage in it, possessing, not only preliminary knowledge, but likewise some habits of regular and systematic thinking.

If able teachers and writers, and profound inquirers, be still called for to expound medical science, and to extend its domain of practical application and usefulness, they cannot be procured by intuitive effort on their own part, nor by the exercise of the elective suffrage on the part of others. They must be the product of a regular and comprehensive system,—members of a large class, from the great body of which they only differ by the force of fortuitous circumstances, that gives them a temporary vantage ground for the display of qualities and attainments common to their brethren.

JOHN BELL, M. D.

RICHARD DENNIS ARNOLD, M.D.
(1808-1876)

LEWIS DESAUSSURE FORD, M.D.* (1801-1883)

George A. Traylor, M.D.
Augusta

On March 20, 1849, about eighty physicians, among the number the immortal Crawford W. Long,† met in Macon and organized the Medical Association of Georgia. At that meeting Dr. Lewis D. Ford of Augusta was elected President. In recognition of his attainments the University of Georgia conferred upon him the degree of Doctor of Laws.

Dr. Ford was born in Morristown, N. J., Dec. 30, 1801. He graduated from the College of Physicians and Surgeons of New York in 1822, and shortly thereafter settled in Bamberg, S. C., where he began the practice of his profession. In 1827 he moved to Augusta, where, except for service with the Confederate forces, the remainder of his life was spent.

Dr. Ford was a public spirited citizen and enjoyed the confidence and esteem of the community and State. Every measure calculated to advance the general welfare found in him a zealous advocate. For a number of years he served as a member of City Council, and in 1846 was elected Mayor of Augusta. He was President of the Board of Health for many years and the Board and City Council expressed deep regret when he could not be persuaded to withdraw his resignation.

For almost fifty years Dr. Ford was Professor of the Principles and Practice of Medicine in the Medical College of Georgia, and Dean of the college for many years. From the genesis of the Medical College of Georgia in 1832 its faculty members had been dissatisfied with the short time necessary to obtain a medical degree in American medical schools; and, as a consequence, opened the school with a six-months' course. Thus upon Georgia rests the credit for initiating a six-months' course. Indeed, Dr. J. A. Eve advocated a ten-months' course for four successive years; the Medical School of Paris serving as his model. The Medical College of Georgia continued to give the six-months' course until 1835 when the following letter was drafted by the faculty and sent to the other fifteen medical colleges in the United States:

"MEDICAL COLLEGE OF GEORGIA
May 1835

"To the Faculty of the Medical College of.....:

"The faculty of the Medical College of Georgia, would present to their fellow labourers in the cause of medical science a subject of great importance and of common interest.

"We believe it is a subject of regret universal among the officers of our medical colleges; that young men do now present themselves, and with confidence, as candidates for its highest honors, whose want of previous education and of mental discipline disqualifies them to reap the advantages which may be offered at our various institutions: and that all unprepared as such are for discharging the duties of so difficult profession, and for contributing to its improvement, custom requires they must yet be admitted to its ranks. Although some, of our schools may be peculiarly exposed to such evils, still we believe they are sensibly felt and will be acknowledged by all.

"Thoroughly convinced that the profession, whose respectability it is alike our duty and inclination to advance, requires that the medical colleges of the United States, now, take some decided action upon this subject of Medical Education, we beg leave respectfully, to solicit your cooperation in effecting a Convention of Representatives from the medical colleges to be held in Washington, for the purpose of establishing an uniform system of requisitions for the degree of Doctor of Medicine; of regulating the courses of professional study; the extent of previous education; and counselling generally about the means of rendering our institutions most successful in diffusing the benefits of Medical Education.

"We do not fix upon any time for holding this proposed convention: but in our communication to the University of Pennsylvania have proposed May 1836. This will allow ample time for making all necessary arrangements and for that deliberation which the importance of the subject demands. We would, however, suggest that the determination of the time, the number of delegates from each college, etc., should be referred to the Faculty of the University of Pennsylvania, the oldest medical school in our country.

"Should this suggestion meet your approbation and concurrence, we shall ever rejoice in having contributed to a reformation which, though it may operate peculiarly

*Acknowledgment is made of information obtained from The History of the Medical Department of the University of Georgia, by W. H. Goodrich, A.B. M.D., F.A.C.S. (1928). (Ridgely-Tidwell Co., Augusta, Ga.); and from History of Georgia School of Medicine, by Cecelia C. Mettler, A.M., Phi Chi Quarterly, January, 1937.

†The proceedings of the organization meeting of the State Medical Association fail to show the name of Crawford Williamson Long. There is listed from Madison County, where Crawford W. Long was born, the name of H. R. J. Long.—Ed.

LEWIS DESAUSSURE FORD, M.D.
(1801-1883)

to the disadvantage of our own college, will yet promote the interests of the common cause of medical science.

"We solicit an early reply to this communication, which is respectfully submitted, by the Faculty of the Medical College of Georgia.

(Signed) L. D. Ford, Dean."[1]

Dr. James J. Walsh in the *Encyclopedia Americana* attributes the formation of the American Medical Association to this letter; and, as expressed by Dr. Abraham Flexner, "As far back as 1835, the Medical College of Georgia had vainly suggested concerted action looking to more decent methods, but no step was taken. . . ."[2]

A few of the faculties of the medical schools replied to the letter but many ignored it. From the Medical School of the University of Pennsylvania the following was received:

"Philadelphia, Nov. 15, 1835.

"Dr. L. D. Ford, Dean,

"Dear Sir:

"Shortly after the reception of yours of May 19th, I informed you of the fact, and of my intention to lay your communication, on the subject of modifying the terms of admission into the Profession of Medicine, before the medical faculty at their first business meeting. Having lately executed this promise, I have now to state that the medical faculty, after giving it full consideration, have thought it better for each school to adopt such regulations as might suit its particular views, than to enter into any general obligations on the subject, when there exists no competent power to prevent their violation.

"I am, very respectfully, your ob't serv't.

"W. E. Horner, Dean, Etc."

Eleven years later Dr. Nathan Smith Davis began agitation for the formation of the American Medical Association, committed to two propositions, "that young men received as students of medicine should have acquired a suitable preliminary education," and "that a uniform elevated standard of requirements for the degree of M.D. should be adopted by all the medical schools in the United States."[2]

It should be a matter of pride with our membership that our first president, together with his colleagues, took the leading part in advocating higher standards of medical education.

When Dr. Ford entered the Confederate service he was sixty years of age. He served with the First Georgia Hospital in Richmond until the end of the struggle.

As is but natural, the death of so distinguished a public servant as Dr. Ford caused universal mourning throughout the city. Mayor May called City Council in special session and announced his passing, which occurred Aug. 21, 1883.

REFERENCES

1. Eve, J. A.; Medical Education, Southern Medical and Surgical Journal, 1:217.

2. Medical Education in the United States and Canada, a Report to the Carnegie Foundation for the Advancement of Teaching, by Abraham Flexner, with an Introduction by Henry S. Pritchett. Bulletin No. 4, Page 10.

PRIZES

The three prizes available to our members are: The Crawford W. Long Memorial prize offered by an unknown party deeply interested in the progress of Georgia medicine. It is to be presented annually (separate prizes each year) to the member of our Association who presents before the Association at its annual convention the best essay on a medical subject which contains evidence of original work. Note that the essay must have been read before the State Association in convention assembled. Thus far there have been no papers presented from last year's convention. The committee will be pleased to receive essays in competition for this prize.

The Hardman prize was presented by ex-Governor L. G. Hardman and consists of a silver loving cup on which the name of the winner is inscribed. Any essay presented by a member of the Medical Association of Georgia in good standing and read before the State Convention or at any meeting of a district or county medical society in Georgia is eligible for competition. The prize is to be awarded to the best essay on any subject pertaining to medicine and the essay does not necessarily treat of original work. Could you suggest by direct contact or through The Journal that all the medical societies of our State send in the best essays?

The Ware County hookworm prize will be presented to the member of the Medical Association of Georgia who delivers the best essay on hookworm disease, its progress, and its treatment before the State Association, or a county or district society during the current year.

William R. Dancy, M.D., Chairman
Committee on Awards.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.
APRIL, 1941

WELCOME TO MACON

The Bibb County Medical Society extends a most cordial invitation to the Medical Association of Georgia and its Woman's Auxiliary to attend the annual meeting of the Association in Macon, May 13-16. We have planned a fine meeting, and anticipate a record-breaking attendance.

There are numerous points of interest in and near Macon: Camp Wheeler is practically completed as is the Flying School at Avondale. These and the Ocmulgee National Monument with its interesting museum and council chamber should be visited by everyone. In addition, the usual annual golf tournament for our members will be held at the Idle Hour Club.

Make your hotel reservations early and plan to stay through the entire meeting.

Cordially yours,
H. G. WEAVER, M.D., *President*
Bibb County Medical Society.

A PRICELESS DOCUMENT

Elsewhere in this *Journal* will be found photostatic copies[1] of the printed proceedings of the first State Medical Convention held in Macon, March 20, 1849; and the Constitution of the Medical Society of the State of Georgia. In addition, are pages showing the Code of Medical Ethics adopted by the Convention, the same code as was adopted by the American Medical Association at its second meeting in Philadelphia in May, 1847.

These pages are reproduced for several reasons: First, and perhaps the most important, is to bring back to Georgia, for the intelligence and pleasure of all persons interested in medical history, actual copies of the pages of a document which has reposed for countless years in the files of the Army Medical Library in the nation's capital. So far as the editor knows the copy of the proceedings of the organization meeting of the State Medical Association, in 1849, now in the Army Medical Library, is the only authentic copy in existence.

Ninety-two years mean little in the life of an organization; to man as many years mean, in most instances, birth, a full life, and death. All of the seventy-five men who founded the State Medical Association in 1849 — now the Medical Association of Georgia, with almost two thousand members —have passed to their rewards; but they left for all of us a record of their work. That record of the first meeting of our beloved Association speaks for itself. It has been photographed, each and every word, to set forth again the principles upon which organized medicine stood then, principles which have lived through all the intervening years from March 20, 1849, to the present time, and principles which will be helpful in guiding us in the future.

1. Supplied through the courtesy of Dr. Allen H. Bunce, whose efforts have long been aimed at improving our knowledge of Georgia's medical history.—Ed.

BIBB COUNTY

Bibb County was created in 1822 from the northern portion of Houston County. In 1833, it was enlarged by a slice from Twiggs and, in 1834, was still further enlarged by a slice from Jones.

It was named for Dr. William W. Bibb, a distinguished physician and statesman, who was born in Virginia in 1780. He availed himself of the best education the country afforded and was graduated in medicine from the University of Pennsylvania, in 1801. He at once came to Elberton, Georgia, to practice his profession. Early in his career he showed ability as a statesman and was elected Representative to the tenth United States Congress. He served for five consecutive terms and was then elected to the United States Senate, but did not accept the office, preferring instead appointment as Territorial Governor of Alabama. He was later elected first governor of that State.

The first white settlement in what is now Bibb County was at Fort Hawkins, a trading post on the banks of the Ocmulgee River about 1805 or 1806. The population in-

creased and spread along the river banks beyond the Indian mounds which are now attracting so much local and national attention. The first permanent settlement at the site of the city of Macon was about 1819. In 1823, a charter was secured for the city and it was named for Honorable Nathaniel Macon. It was at once made the county site and grew rapidly in population and commercial influence. In 1825, its population numbered 500; ten years later, 4,000; in 1850, there were 5,700 inhabitants.

Macon was the central city of the State and the pioneer farmers used it as a trading center. Many of them drove in their covered wagons for more than a hundred miles to exchange their cotton for a year's supply of farm implements, sugar and coffee, and calico for the girls' Sunday dresses.

We have been unable to find the names of any outstanding early physician, but the tragic death of Dr. Ambrose Baber, probably Bibb County's first doctor, is an example of the fidelity of the early doctors of Georgia. He found a prescription in an edition of the National Formulary and prepared it for one of his patients, but decided that he would take a dose before giving it to the patient. It caused his death in an incredibly short time.

Mercer University, located in Bibb County, is one of the South's early educational institutions. Wesleyan Female College, also located a few miles north of Macon, is the oldest chartered institution of its kind in the world. The Georgia Academy for the Blind is also located in Macon.

In the early days the flat country along the banks of the river was infested with malaria and, in 1876, there was an epidemic of yellow fever. Seventy cases developed, of whom only forty-nine were natives; the others were refugees. Dr. Magruder contended that the fever was imported from Savannah and stated that he knew the first two cases to develop were from that seaport.

The courts of Bibb County began to function early. The first trial recorded was that of a free Negro convicted of bootlegging whisky. The first grand jury indictment was a white man accused of stabbing.

Its population, educational institutions, and commercial and manufacturing enterprises have increased rapidly until Bibb County may now boast of one of the most prosperous and influential communities in the State.

J. L. Campbell, M.D.

MACON THE LOVELY CITY

Few cities present a more attractive appearance than Macon as one approaches it from the North. First is seen the imposing outlay of Wesleyan College; then, not far away to the right one views the beautiful Idle Hour Country Club and Golf Course where members of the Medical Association of Georgia have been entertained so hospitably. As you descend the long hill from Vineville into the heart of the city, what handsome old homes meet the eye, though unfortunately now being abandoned as residences, due to the encroachment of business and industry. Nevertheless, it is still a lovely sight, especially when flowers, shrubbery and trees are in full bloom. Then, as one comes into the center of the city it is realized that Macon can boast of its modern, wide-awake commerce and manufacturing as well as palatial homes and fine parks.

"The town of Macon! May its prosperity continue to be one of the strongest arguments in favor of republican institutions." This toast was proposed by General LaFayette while in Macon on a visit in 1824, which took place very soon after Macon became a settlement. The trading post first set up opposite the Indian village soon became Fort Hawkins, to be succeeded by the town of Macon in 1823. The locational advantages of the town by the Ocmulgee River, almost in the exact geographic center of Georgia, were apparent from that day, and the historic past which Macon enjoys dates from Indian occupancy of this area. From a community of eight hundred people in 1826 the growth of Macon has been steady through the years. Never spectacular, the well-rounded devel-

opment into a city of versatile parts has been gradual but permanent. The 1940 census gives a population of 57,869; the population of Bibb County is 83,791.

Thousands of visitors come to Macon each year to see several sites and institutions which have reached historic age. The most remarkable one of these, and one which recently has attracted widespread attention, is the remains of an ancient Indian city, on a plateau-like area along the Ocmulgee River adjoining Macon. Numerous mounds have caused the site to be known locally as the Indian mounds, but the technical name is Ocmulgee National Monument. Although there are mounds and other indications of early Indian occupancy over a great deal more territory along the river, a tract of 640 acres has been deeded to the Federal Government—National Park Service—for development. Restoration of the archaeologic exhibits, as well as construction of facilities for taking care of visitors, is under way on this site which is to become the center of archaeologic interest in the Southeast. The tract has been set aside to preserve these evidences of prehistoric life because of their scientific importance.

Macon can well be proud of its educational institutions. Near Tattnall Square Park, on a campus covering sixty-three acres, stands Mercer University, first started at Penfield, Georgia, in 1833, and named after the Baptist minister, Jesse Mercer. The attendance that year was thirty-nine students. In connection with the school a farm was operated, and the students spent a part of each day working in the fields. The original intention was to limit instruction to young men in training for the ministry, and such instruction is still one of the important features of the curriculum. Many distinguished and able preachers have been graduated by Mercer. In 1871 the college was moved from Penfield to Macon. The number of students in attendance at present is 550. Senator Walter George and forty per cent of Georgia congressmen are alumni of Mercer. The Law School is one of the most successful branches of the institution, and especial attention is accorded the pre-medical course. Ninety-three living Georgia doctors, most of whom belong to the Medical Association of Georgia, attended Mercer, and it is interesting to record that the college has conferred the degree of LL.D upon two of its alumni, who are also ex-presidents of the Association. These are Dr. J. E. Paullin and the late Dr. M. A. Clark.

Wesleyan College, located at Rivoli, six miles from Macon, has the distinction of being the first chartered college for women to confer college degrees upon women. It was founded in Macon in 1836, under the name of the Georgia Female College, and in 1843 became Wesleyan Female College. In 1919 the name was changed to Wesleyan College. As Mercer is controlled by the Baptist church, Wesleyan since 1843 has been operated by the Methodists. Since 1928 the college has occupied its present magnificent site at Rivoli, the former buildings near the center of Macon being used by the Wesleyan Conservatory of Music. The attendance this year is 250 students. Both Wesleyan and Mercer are given the highest ratings among schools of this class.

Mount de Sales Academy, a Catholic preparatory school for girls, and Catholic parochial school for boys, is located in Macon. This institution began its splendid career in 1876, and has ever been a useful factor in educating the youth of the State.

The City Hall is valued at $500,000. It has recently been remodeled and is considered to be one of the finest buildings of its type in the South. The Municipal Auditorium, where the sessions of the Medical Association will be held, is reputed to have the largest copper-covered dome in the world. The building has a seating capacity of 4,000, and cost $1,000,000. The impressive municipal stadium, located near Mercer University, accommodates an audience of 11,000. The boyhood home of Sidney Lanier, one of the South's great poets, still stands in Macon. Just outside the city limits is the Georgia Academy for the Blind, built in 1851. The Herbert Smart Airport, which contains 260 acres, and which cost $250,000, was dedicated in 1937. This airport has sodded runways and is equipped with landing beam, admin-

istrative building and a large steel hangar. The field is located 5½ miles by road and 3½ miles by airline from the city.

Macon has always possessed one of the most progressive medical professions in the South. Many distinguished practitioners have hailed from the Central City. Four modern hospitals, three private and one city hospital, furnish ample facilities for satisfactory medical and surgical practice.

On March 15, 1941, the first of 10,000 draftees were scheduled to arrive in Macon, in groups of 500 daily. They will be quartered at the Camp Wheeler Infantry Replacement Center, or the Air Corps Basic Flying School near Avondale. More than $10,000,000 is being spent at Camp Wheeler to give 13-week courses in the manly art of defense. Another important feature of the Macon program is the Navy's fuse-loading plant, being built of permanent brick and concrete at a cost of $2,000,000. Thus a new and interesting life of activity and progress is in prospect for the Central City.

Members of the Medical Association of Georgia attending the ninety-second annual meeting will have but little opportunity to consider other important aspects of the host city, such as its valuable and successful commercial and manufacturing enterprises. It is interesting to recall that our Association and the American Medical Association are almost the same age, and that the Medical Association of Georgia was organized in Macon in 1849. Visitors will be impressed with the culture and warm hospitality of Macon. The proverbial friendliness and cordiality of a Southern city is no unproven, exaggerated claim, and nowhere will it be better demonstrated than in Macon, Georgia.

Frank K. Boland, M.D.

LOOKING FORWARD

As I begin the steep descent I am all the more resolved that the medical profession should lead the list of all professions, not excepting the clergy, in an altruistic service to suffering mankind. It should remain ironclad in its ethics, forsaking commercialistic tendencies, and devoted to the highest ideals of sacrifice, even unto physical exhaustion and death if need be, to carry on for those who love and trust them as no other class of men can inspire devotion. My richest rewards now are treasured in the hearts of those I have humbly served.

—John W. Simmons, M.D.

BIBB COUNTY MEDICAL SOCIETY

Fifteen of the seventy-five physicians present at the organization meeting of the Medical Association of Georgia, held in Macon in 1849, were from Bibb County. This was the largest delegation from any of the thirty-one counties which sent representatives to the organization meeting. Generally, counties that joined Bibb and those nearby sent the most delegates: Monroe County sent six delegates and Houston County furnished five delegates. Pike County and Twiggs County each was represented by four delegates; and Dooly County, Fayette County, Muscogee County and Upson County each had three delegates. Baker County, Chatham County, Jasper County, Jones County, Lee County, Oglethorpe County and Richmond County each had two delegates. Each of the following counties had one delegate: Baldwin, Burke, Clarke, Cobb, Crawford, Floyd, Gwinnett, Henry, Madison, Meriwether, Morgan, Stewart, Sumter, Troup and Washington.

On motion of Dr. E. L. Strohecker, of Bibb County, the convention was temporarily organized. When the organization meeting was concluded three of the five officers elected were from Bibb County: Dr. T. R. Lamar, second vice-president; Dr. J. M. Green, corresponding secretary; and Dr. Charles T. Quintard, recording secretary.

Macon and Bibb County have had good physicians ever since white men settled there, but what makes them better is their willingness to associate in a common purpose. The Bibb County Medical Society is due credit for much of the medical progress in Middle Georgia. Many of its members have distinguished themselves not only at home but as representatives to the Medical Association of Georgia, and the American Medical Association; and all have added to the cultural life of their community and State.

The Editorial Staff acknowledges with thanks the contributions to this number of *The Journal*. Most of them were written by members of the Bibb County Medical Society, to whom, with their colleagues, this number is dedicated.

COMMUNICATIONS

RE: PHOTOS OF THE FIRST OFFICERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Macon, Ga., March 27, 1941.

Dr. Edgar D. Shanks, Sec'y.-Treas.,
Atlanta, Georgia.

Yours of March 26 received. I am doing everything possible to get the items you requested. I will have photos of Drs. Nottingham, Strohecker, and Baber. Unable to get photos of the other doctors, but will try to get picture of Dr. J. M. Green's tomb. I am unable to find out anything about the others. There seems to be no descendants nor family connections hereabout.

I have the write-ups of Wesleyan and Mercer, and the picture of St. Luke's Hospital. Dr. Carl Anderson made a thorough search for information concerning the history of the only medical college that was ever in Macon: also, as to the origin of the first medical society here. He has incorporated all of this in the article which he prepared. So far as is known, the present Bibb County Medical Society is the same as the original.

I hope to have everything ready to send you in a few days. Glad to be of any service that I can for you.

O. H. WEAVER, M.D.

S. D. BURNEY, M.D.

First Secretary of the Organization Meeting of the Medical Association of Georgia

Forsyth, Ga., March 29, 1941.

Dr. Edgar D. Shanks, Sec'y.-Treas.,
Atlanta, Georgia.

I received your note in regard to a picture either of Dr. S. D. Burney or of his tomb and am sorry I am unable to report much progress.

After making inquiry among a number of older citizens I finally learned that Dr. Burney was a connection of the Rudisill family. I called Miss Yett Rudisill over long distance at the Beck & Gregg Hardware Co., in Atlanta, as she is the oldest living member of the Rudisill family. Miss Rudisill told me that Dr. Burney was the husband of her great aunt, but she was unable to tell me anything else of him and said that she did not have a picture of him. She did not know where he was buried except that he was not buried in this county (Monroe).

She did say that he had a son by the name of Tom Burney who at one time had worked on the *Atlanta Journal* and on an Augusta, Ga., paper, but she did not know his present location.

I regret that I have been unable to get any further than that with the request, and if at any other time I can be of service please call on me.

GEORGE H. ALEXANDER, M.D.

PHOTO OF R. D. ARNOLD, M.D.

Savannah, Ga., March 27, 1941.

Dr. Edgar D. Shanks, Sec'y.-Treas.,
Atlanta, Georgia.

I have located some pictures of Dr. R. D. Arnold in the Georgia Historical Society and have instructed Mr. Foltz, one of our best photographers, to go there and make a picture of the most suitable one and send it to you . . . With best wishes to you and Mrs. Shanks and all my good friends, I am

Sincerely yours,

WILLIAM H. MYERS, M.D.

LEWIS D. FORD, M.D.

Augusta, Ga., March 27, 1941.

Dr. Edgar D. Shanks, Sec'y.-Treas.,
Atlanta, Georgia.

Dr. Lewis D. Ford was at one time mayor of Augusta and his photograph hangs in the Council Chamber here. Also there is an oil portrait of him in the Medical School here and we could have a photograph made of that. Both look about the same, but I believe the photograph looks better as it does not show the cracks as in a portrait.

Our professor of medical history, Dr. Cecelia Mettler, is writing a medical history for Saunders, and has something on file about Dr. Ford. She is going to send it to me; and she is going to see if Dr. Krafka has anything on him. We hope to get something for you. I tried to get Mrs. Mettler to write it but she is busy with her history. In case I cannot will try Dr. Krafka.

Dr. Ford is buried in Magnolia Cemetery here. He was born in 1801 and died in 1883.

GEORGE A. TRAYLOR, M.D.

BIBB COUNTY MEDICAL SOCIETY: PAUCITY OF MINUTES

Macon, Ga., March 24, 1941.

Dr. Edgar D. Shanks,
478 Peachtree St.,
Atlanta, Ga.

Re: Bibb County Medical Society.

Dear Shanks:

Replying to your request for more material dealing with the history of the local society, the minutes of the Bibb County Medical Society are only available for a few years back, and there is a scarcity of worthwhile data available with which an article could be prepared. Dr. Carl Anderson makes some reference to the society in his article on "The Medical History of Macon" and, while brief, is probably all that can be said without a heavy draft on one's fancy, and I am no dreamer. So I think there can be no further word on the subject. Sorry.

Sincerely,

O. H. WEAVER, M.D.

There are about seven thousand vacancies in the Medical Corps Reserve and more than eight hundred in the Medical Administrative Corps Reserve, according to the *Army and Navy Journal*, March 1. Only the Ninth Corps Area has attained full peacetime Medical Reserve Corps strength.

Examinations by the American Board of Obstetrics and Gynecology for groups A and B candidates will be conducted at Cleveland, Ohio, by the entire Board from Wednesday, May 28, to Monday, June 2, 1941, inclusive, prior to the opening of the annual session of the American Medical Association.

The American Medical Association will hold its Ninety-Second Annual Session in Cleveland, Ohio, June 2 to 6, 1941.

OFFICERS OF THE MEDICAL ASSOCIATION OF GEORGIA 1940-1941

CAT.

JOB CALDWELL PATTERSON, M.D., Cuthbert
President, 1940-41

ALLEN HAMILTON BUNCE, M.D., Atlanta
President-Elect, 1940-41

CAT. CAT. CAT. CAT.

J. K. Quattlebaum, M.D.,
Savannah, First Vice-President

Marion T. Benson, Jr., M.D.,
Atlanta, Second Vice-President

Edgar Shanks, M.D., Atlanta,
Secretary-Treasurer and
Editor of The Journal

John W. Simmons, M.D.,
Brunswick, Parliamentarian

The officers of the Medical Association of Georgia urge its members to attend the Ninety-Second Annual Session to be held in the Municipal Auditorium, Macon, May 13-16, 1941.

The House of Delegates will convene Tuesday, May 13, at 2:00 P.M. in the Municipal Auditorium. The scientific session will convene Wednesday, May 14, at 8:30 A.M.

William H. Myers, M.D.,
Savannah
Delegate to the A.M.A.

Chas. W. Roberts, M.D.,
Atlanta
Delegate to the A.M.A.

Olin H. Weaver, M.D.,
Macon
Delegate to the A.M.A.

Wm. A. Mulherin, M.D.,
Augusta, Alternate
Delegate to the A.M.A.

Marion C. Pruitt, M.D., Atlanta
Alternate Delegate to the A.M.A.
and Vice-Councilor, Fifth
District

C. K. Sharp, M.D.
Arlington
Alternate Delegate to the A.M.A.

Cleveland Thompson, M.D.
Millen
Councilor, First District

C. K. Wall, M.D.,
Thomasville
Councilor, Second District

Steve P. Kenyon, M.D.,
Dawson
Councilor, Third District

Kenneth S. Hunt, M.D.,
Griffin
Councilor, Fourth District

W. A. Selman, M.D.,
Atlanta
Councilor, Fifth District

H. D. Allen, Jr., M.D.,
Milledgeville
Councilor, Sixth District

Z. V. Johnston, M.D., Calhoun
Councilor, Seventh District

B. G. Owens, M.D., Valdosta
Councilor, Eighth District

C. B. Lord, M.D., Jefferson
Councilor, Ninth District

H. L. Cheves, M.D., Union Point
Councilor, Tenth District

R. V. Martin, M.D., Savannah
Vice-Councilor, First District

Chas. H. Watt, M.D., Thomasville
Vice-Councilor, Second District

J. Cox Wall, M.D., Eastman
Vice-Councilor, Third District

Enoch Callaway, M.D., LaGrange
Vice-Councilor, Fourth District

H. G. Weaver, M.D., Macon
Vice-Councilor, Sixth District

D. Lloyd Wood, M.D., Dalton
Vice-Councilor, Seventh District

W. F. Reavis, M.D., Waycross
Vice-Councilor, Eighth District

J. K. Burns, M.D., Gainesville
Vice-Councilor, Ninth District

C. E. Wills, M.D., Washington
Vice-Councilor, Tenth District

H. L. Rowe, Social Circle
Executive Secretary and Business Manager The Journal

PROGRAM

MEDICAL ASSOCIATION OF GEORGIA

Ninety-Second Annual Session

Macon

May 13, 14, 15, 16, 1941

Officers and Committees, 1940-1941

Officers

President.....J. C. Patterson, Cuthbert
President-Elect.....Allen H. Bunce, Atlanta
First Vice-President.....J. K. Quattlebaum, Savannah
Second Vice-President.....Marion T. Benson, Jr., Atlanta
Secretary-Treasurer.....Edgar D. Shanks, Atlanta
Parliamentarian.....John W. Simmons, Brunswick

Delegates to the A. M. A.

Wm. H. Myers (1941-42).....Savannah
Alternate, Wm. A. Mulherin.....Augusta
Chas. W. Roberts (1941-42).....Atlanta
Alternate, Marion C. Pruitt.....Atlanta
Olin H. Weaver (1940-41).....Macon
Alternate, C. K. Sharp.....Arlington

Honorary Advisory Board

W. S. Goldsmith.....President, 1915-1916
J. G. Dean.....President, 1916-1917
E. E. Murphey.....President, 1917-1918
J. W. Palmer.....President, 1918-1919
J. W. Daniel.....President, 1923-1924
F. K. Boland.....President, 1925-1926
V. O. Harvard.....President, 1926-1927
W. A. Mulherin.....President, 1927-1928
C. K. Sharp.....President, 1928-1929
Wm. R. Dancy.....President, 1929-1930
M. M. Head.....President, 1932-1933
C. H. Richardson.....President, 1933-1934
Clarence L. Ayers.....President, 1934-1935
James E. Paullin.....President, 1935-1936
B. H. Minchew.....President, 1936-1937
George A. Traylor.....President, 1938-1939
Grady N. Coker.....President, 1938-1939
Wm. H. Myers.....President, 1939-1940

Bibb County Medical Society

Officers and Committees

Officers

President—H. G. Weaver, Macon.
President-Elect—R. W. Richardson, Macon.
Vice-President—Alvin E. Siegel, Macon.
Secretary-Treasurer—A. M. Phillips, Macon.
Delegate—H. G. Weaver, Macon.
Delegate—Paul S. Kemp, Macon.
Alternate Delegate—Thos. L. Ross, Jr., Macon.
Alternate Delegate—C. K. McLaughlin, Macon.

Committees

Arrangements

Thos. L. Ross, Jr., Macon, General Chairman.
Alvin E. Siegel, Macon.
Harold C. Atkinson, Macon.
Wm. W. Chrisman, Macon.
J. D. Applewhite, Macon.
John I. Hall, Macon.

Reception and Hotels

Geo. Y. Massenberg, Macon, Chairman.
Wallace L. Bazemore, Macon.
O. R. Thompson, Macon.
Ralph G. Newton, Macon.

Transportation

Robert W. McAllister, Macon, Chairman.
William Barton, Macon.
Wm. W. Baxley, Macon.
Otho O. Watson, Macon.

Golf

Thos. H. Hall, Macon, Chairman.
Carl L. Anderson, Macon.
Wm. A. Newman, Macon.
Ernest Corn, Macon.

Entertainment

Chas. H. Richardson, Macon, Chairman.
Charlie N. Wasden, Macon.
Thos. Harrold, Jr., Macon.
Raymond Suarez, Jr., Macon.

Finance

Alpheus M. Phillips, Macon, Chairman.
Wm. C. Boswell, Macon.
James A. Fountain, Macon.
Wm. A. Newman, Macon.

Publicity

Chas. Hall Farmer, Macon, Chairman.
James L. King, Macon.
Paul S. Kemp, Macon.

Alumni Dinners

University of Georgia

Hudnall G. Weaver, Macon, Chairman.
Chas. L. Ridley, Macon.

Emory University

Thos. L. Ross, Jr., Macon, Chairman.
Harold C. Atkinson, Macon.

Woman's Auxiliary

Leon D. Porch, Macon, Chairman.
W. W. Chrisman, Macon.
Rhea W. Richardson, Macon.

Medical Association of Georgia

Council

W. A. Selman, Chairman ..... Atlanta
Z. V. Johnston, Clerk ..... Calhoun

Councilors

1. C. Thompson (1942) ..... Millen
2. C. K. Wall (1942) ..... Thomasville
3. Steve P. Kenyon (1942) ..... Dawson
4. Kenneth S. Hunt (1942) ..... Griffin
5. W. A. Selman (1943) ..... Atlanta
6. H. D. Allen, Jr. (1943) ..... Milledgeville
7. Z. V. Johnston (1943) ..... Calhoun
8. B. G. Owens (1943) ..... Valdosta
9. C. B. Lord (1941) ..... Jefferson
10. Harry L. Cheves (1941) ..... Union Point

Vice-Councilors

1. R. V. Martin (1942) ..... Savannah
2. C. H. Watt (1942) ..... Thomasville
3. J. Cox Wall (1942) ..... Eastman
4. Enoch Callaway (1942) ..... LaGrange
5. Marion C. Pruitt (1943) ..... Atlanta
6. H. G. Weaver (1943) ..... Macon
7. D. Lloyd Wood (1943) ..... Dalton
8. W. F. Reavis (1943) ..... Waycross
9. J. K. Burns (1941) ..... Gainesville
10. C. E. Wills (1941) ..... Washington

Committees

Scientific Work

Glenville Giddings, Chairman (1941) ..... Atlanta
Wm. R. Dancy (1942) ..... Savannah
Richard Binion (1943) ..... Milledgeville
Edgar D. Shanks, Secretary-Treasurer ..... Atlanta

Public Policy and Legislation

Spencer A. Kirkland, Chairman (1941) ..... Atlanta
Edgar H. Greene (1943) ..... Atlanta
J. L. Campbell (1942) ..... Atlanta
Edgar D. Shanks, Secretary-Treasurer ..... Atlanta
T. F. Abercrombie, Director, State Department of Public Health ..... Atlanta

Medical Defense

Marion C. Pruitt, Chairman (1943) ..... Atlanta
B. H. Minchew (1944) ..... Waycross
A. R. Rozar (1941) ..... Macon
W. A. Selman, Chairman of Council ..... Atlanta
Edgar D. Shanks, Secretary-Treasurer ..... Atlanta

Hospitals

D. Henry Poer, Chairman (1943) ..... Atlanta
Cleveland Thompson (1944) ..... Millen
A. D. Little (1941) ..... Thomasville
R. H. Oppenheimer (1942) ..... Atlanta
L. P. Holmes (1945) ..... Augusta

Sub-Committee on Hospitals
(Standardization and Insurance)

Grady N. Coker, Chairman ..... Canton
Chas. Adams ..... Cordele
Richard Binion ..... Milledgeville

Revision of Pharmacopeia of U. S.

C. C. Aven, Chairman (1949) ..... Atlanta
Allen H. Bunce (1949) ..... Atlanta
Hal M. Davison (1949) ..... Atlanta

Abner Wellborn Calhoun Lectureship

James E. Paullin, Chairman (1943) ..... Atlanta
J. R. Broderick (1944) ..... Savannah
Eugene E. Murphey (1945) ..... Augusta
George B. Smith (1941) ..... Rome
Frank K. Boland (1942) ..... Atlanta

Medical Economics

J. A. Redfearn, Chairman (1945) ..... Albany
C. W. Strickler ..... Atlanta
Major F. Fowler (1943) ..... Atlanta
C. L. Ridley (1941) ..... Macon
B. T. Beasley (1942) ..... Atlanta
T. C. Johnson ..... Atlanta
R. V. Martin ..... Savannah
C. H. Watt ..... Thomasville
J. Cox Wall ..... Eastman
Enoch Callaway ..... LaGrange
Marion C. Pruitt ..... Atlanta
H. G. Weaver ..... Macon
D. Lloyd Wood ..... Dalton
W. F. Reavis ..... Waycross
J. K. Burns ..... Gainesville
C. E. Wills ..... Washington

Sub-Committee—Medical Economics
(To arrange conference with the view of improving medical care in Georgia.)

James E. Paullin, Chairman ..... Atlanta
C. W. Strickler, Co-Chairman ..... Atlanta
T. F. Abercrombie ..... Atlanta
C. W. Roberts ..... Atlanta
B. H. Minchew ..... Waycross
A. J. Mooney ..... Statesboro
Enoch Callaway ..... LaGrange
C. L. Ayers ..... Toccoa
Cleveland Thompson ..... Millen
Grady N. Coker ..... Canton

Necrology

B. H. Minchew, Chairman ..... Waycross
F. M. Martin ..... Shellman
W. E. Wofford ..... Cartersville
George S. Murray ..... Columbus
C. S. Pittman ..... Tifton
L. E. Williams ..... Cordele

Medical History of Georgia
Sub-Committee

Frank K. Boland, Chairman ..... Atlanta
J. Calvin Weaver, Co-Chairman ..... Atlanta
L. Minor Blackford ..... Atlanta
Allen H. Bunce ..... Atlanta
Wm. H. Kiser ..... Atlanta
George A. Traylor ..... Augusta
C. M. West ..... Atlanta
Mrs. V. H. Bassett ..... Savannah
John E. Walker ..... Columbus
John W. Turner ..... Atlanta

Awards

Wm. R. Dancy, Chairman ..... Savannah
J. A. Redfearn ..... Albany
M. M. McCord ..... Rome
Jos. C. Tidmore ..... Dawson
T. B. Armstrong ..... Atlanta

Cancer Commission

J. L. Campbell, Chairman ... Atlanta
E. L. Bishop, Co-Chairman ... Atlanta
James J. Clark, Secretary ... Atlanta
Wm. H. Myers ... Savannah
A. J. Mooney ... Statesboro
A. D. Little ... Thomasville
R. F. Wheat ... Bainbridge
R. C. Pendergrass ... Americus
W. A. Coleman ... Eastman
D. S. Reese ... Carrollton
Enoch Callaway ... LaGrange
Chas. C. Harrold ... Macon
Jas. A. Fountain ... Macon
D. Lloyd Wood ... Dalton
P. O. Chaudron ... Cedartown
Kenneth McCullough ... Waycross
T. G. Ritch ... Jesup
Chas. R. Andrews, Jr. ... Canton
W. B. Schaefer ... Toccoa
James J. Martin ... Atlanta
Wm. Henry Roberts ... Augusta

Advisory Committee on Orthopedics
State Department of Public Welfare

F. G. Hodgson, Chairman ... Atlanta
Thos. P. Goodwyn ... Atlanta
H. M. Michel ... Augusta
W. A. Newman ... Macon
Frank Schley ... Columbus
L. H. Muse ... Atlanta

Advisory Committee on Ophthalmology
State Department of Public Welfare

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Francis Blackmar ... Columbus
H. M. Moore ... Thomasville
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National Youth Administration

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Allen H. Bunce ... Atlanta
Chas. H. Richardson ... Macon
T. F. Abercrombie ... Atlanta

Syphilis

E. G. Ballenger, Chairman ... Atlanta
Wm. Shearouse ... Savannah
Rudolph Bell ... Thomasville
Willis P. Jordon ... Columbus
George L. Walker ... Griffin
Jack C. Norris ... Atlanta
Ernest Corn ... Macon
John M. McGehee ... Cedartown
J. C. Keaton ... Albany
J. L. Meeks ... Gainesville
L. W. Pierce ... Waycross
J. Z. McDaniel ... Augusta
S. J. Sinkoe ... Atlanta

Industrial Health

C. F. Holton, Chairman ... Savannah
R. L. Rhodes ... Augusta
R. E. Newberry ... Atlanta
Thos. P. Goodwyn ... Atlanta
A. N. Dykes ... Columbus
O. H. Weaver ... Macon
C. W. Roberts ... Atlanta
Dan Y. Sage ... Atlanta
John W. Simmons ... Brunswick
C. H. Watt ... Thomasville
J. Harry Rogers ... Atlanta

Tuberculosis

Champ H. Holmes, Chairman ... Atlanta
H. C. Schenck ... Atlanta
C. D. Whelchel ... Gainesville
W. C. Cook ... Columbus
John W. Daniel, Jr. ... Savannah
R. C. McGahee ... Augusta
E. F. Wahl ... Thomasville
R. V. Martin ... Savannah
C. M. Sharp ... Alto
H. C. Atkinson ... Macon
R. C. Maddox ... Rome

Scientific Exhibit

Mark S. Dougherty, Jr., Chairman ... Atlanta
Roy R. Kracke, Co-Chairman ... Emory University
Fred A. Mettler, Co-Chairman ... Augusta
Robert Drane ... Savannah
E. L. Bishop ... Atlanta
Lee Howard ... Savannah
Jos. Yampolsky ... Atlanta
Helen W. Bellhouse ... Thomasville
R. N. Johnson ... Rome
Wm. F. Lake ... Atlanta
B. E. Collins ... Waycross
John E. Walker ... Columbus
Edgar R. Pund ... Augusta

Advisory—Woman's Auxiliary

James N. Brawner, Chairman ... Atlanta
C. C. Aven ... Atlanta
H. G. Banister ... Ila
D. Lloyd Wood ... Dalton
Kenneth D. Grace ... LaGrange
Ralph H. Chaney ... Augusta
M. E. Winchester ... Brunswick
Eustace A. Allen ... Atlanta

Post-Graduate Study

G. Lombard Kelly ... Augusta
Russell H. Oppenheimer ... Atlanta
Richard Torpin ... Augusta
Olin S. Cofer ... Atlanta
H. C. Sauls ... Atlanta
Roy A. Hill ... Thomasville
W. F. Reavis ... Waycross

Liaison Committee to Georgia
State Medical Association

W. E. Person, Chairman ... Atlanta
O. H. Weaver ... Macon
Edwin S. Byrd ... Atlanta
Thos. Ezzard ... Roswell
R. T. Camp ... Fairburn

Advisory—State Board of Health

Edgar H. Greene, Chairman ..... Atlanta
H. G. Weaver ..... Macon
J. Cox Wall ..... Eastman
Thos. Chason ..... Donalsonville
R. C. Franklin ..... Swainsboro
Steve P. Kenyon ..... Dawson
W. G. Elliott ..... Cuthbert

Sub-Committee
Advisory—State Board of Health
Social Security Act

W. C. Goodpasture, Chairman ..... Atlanta
O. R. Thompson ..... Macon
J. W. Thurmond ..... Augusta
W. D. Travis ..... Covington
Loren Gary, Jr. ..... Shellman
P. L. Williams ..... Cordele
Leonard R. Massengale ..... Lumpkin

Pediatrics
State Board of Health

Wm. Willis Anderson, Chairman ..... Atlanta
Frank Schley ..... Columbus
A. J. Waring ..... Savannah

Appendicitis
Reduction of Mortality

T. C. Davison, Chairman ..... Atlanta
Julian K. Quattlebaum ..... Savannah
C. K. Wall ..... Thomasville
H. A. Smith ..... Americus
Kenneth S. Hunt ..... Griffin
Fred F. Rudder ..... Atlanta
F. B. Rawlings ..... Sandersville
Lester Harbin ..... Rome
Kenneth McCullough ..... Waycross
Grady N. Coker ..... Canton
Ralph H. Chaney ..... Augusta

Study of Maternal Mortality and Infant Deaths

H. F. Sharpley, Jr., Chairman ..... Savannah
C. B. Upshaw ..... Atlanta
Richard Torpin ..... Augusta
A. H. Hilsman ..... Albany
H. J. Bickerstaff ..... Atlanta

Fraternal Delegates to Other State Meetings

Alabama: Don F. Cathcart, Atlanta, and A. R. Rozar, Macon.

Florida: Wm. W. Anderson, Atlanta; W. S. Goldsmith, Atlanta; Chas. R. Andrews, Jr., Canton, and Robt. T. Jones, Canton.

North Carolina: Clarence L. Ayers, Toccoa, and C. M. Sharp, Alto.

South Carolina: W. F. Reavis, Waycross; Grady N. Coker, Canton; and A. J. Waring, Savannah.

Tennessee: D. Lloyd Wood, Dalton, and Lester Harbin, Rome.

State Board of Medical Examiners

Claude Griffin, President ..... Atlanta
Harold P. McDonald, Vice-President ..... Atlanta
M. B. Copeloff ..... Atlanta
R. F. Wheat ..... Bainbridge
Steve P. Kenyon ..... Dawson
J. W. Palmer ..... Ailey
G. T. Lyon ..... Roswell
L. G. Neal ..... Cleveland
J. B. Warnell ..... Cairo

State Board of Health*

First District: J. C. Metts, Savannah, Sept. 1, 1945.
Second District: C. K. Sharp, Arlington, Sept. 1, 1945.
Third District: Mr. R. C. Ellis, Americus, Sept. 1, 1942.
Fourth District: J. A. Corry, Barnesville, Sept. 1, 1943.
Fifth District: Mr. Robt. F. Maddox, Atlanta, Sept. 1, 1942.
Sixth District: C. L. Ridley, Macon, Sept. 1, 1944.
Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1944.
Eighth District: Henry W. Clements, Adel, Sept. 1, 1944.
Ninth District: Robt. L. Rogers, Gainesville, Sept. 1, 1945.
Tenth District: D. N. Thompson, Elberton, Sept. 1, 1943.

*Nominated by their respective district medical societies and appointed for six year terms.

State of Georgia at Large

*Dental Association**

W. K. White, Savannah, Sept. 1, 1945.
J. G. Williams, Atlanta, Sept. 1, 1945.

*Nominated by the Georgia Dental Association.

*Pharmaceutical Association**

M. D. Hodges, Marietta, Sept. 1, 1941.
W. T. Edwards, Augusta, Sept. 1, 1941.

*Nominated by the Georgia Pharmaceutical Association.

District Societies
Officers and Meeting Dates

First District

President—E. C. Demmond, Savannah.
Secretary—Chas. Usher, Savannah.
Third Wednesdays—March and July.

Second District

President—J. R. Paulk, Moultrie.
Secretary—J. C. Brim, Pelham.
Second Fridays—April and October.

Third District

President—Willis P. Jordan, Columbus.
Secretary—Chas. A. Greer, Oglethorpe.
Third Wednesday in June and Second Wednesday in November.

Fourth District

President—H. J. Copeland, Griffin.
Secretary—Marvin M. Head, Zebulon.
Second Wednesdays—February and August.

Fifth District

President—R. Hugh Wood, Atlanta.
Secretary—A. Worth Hobby, Atlanta.
No set dates.

Sixth District

President—W. W. Chrisman, Macon.
Secretary—Thos. L. Ross, Jr., Macon.
Last Wednesday in June and First Wednesday in December.

Seventh District

President—J. L. Garrard, Rome.
Secretary—Murl M. Hagood, Marietta.

First Wednesday in April and last Wednesday in September.

Eighth District

President—C. A. Witmer, Waycross.
Secretary—G. T. Crozier, Valdosta.
Second Tuesdays—April and October.

Ninth District

President—S. T. Ross, Winder.
Secretary—Pratt Cheek, Gainesville.
Third Tuesdays—March and September.

Tenth District

President—Stewart D. Brown, Royston.
Secretary—J. Z. McDaniel, Augusta.
Second Wednesdays—February and August.

DELEGATES TO THE 1941 SESSION*

Counties	*Names and Addresses*
Appling	
Baldwin	T. C. Clodfelter, Milledgeville
Bartow	A. L. Horton, Cartersville
Ben Hill	
Bibb	A. M. Phillips, Macon
	H. G. Weaver, Macon
Blue Ridge	J. F. O'Daniel, Ellijay
Brooks	A. B. Jones, Quitman
Bulloch-Candler-Evans	B. A. Deal, Statesboro
Burke	J. M. Byne, Jr., Waynesboro
Butts	B. F. Akin, Jackson
Carroll	E. G. Kirby, Bowdon
Chatham	C. F. Holton, Savannah
(Georgia Medical Society)	H. J. Morrison, Savannah
Chattooga	W. B. Mitchell, Trion
Cherokee	C. J. Roper, Jasper
Clarke-Madison-Oconee	W. D. Gholston, Danielsville
Clayton-Fayette	J. R. Wallis, Lovejoy
Cobb	L. L. Welch, Marietta
Coffee	
Colquitt	
Coweta	
Crisp	
Decatur-Seminole	R. F. Wheat, Bainbridge
DeKalb	
Dooly	E. B. Davis, Byromville
Dougherty	J. A. Redfearn, Albany
Douglas	
Elbert	D. V. Bailey, Elberton
Emanuel	R. C. Franklin, Swainsboro
Floyd	Wm. Harbin, Jr., Rome
Forsyth	Marcus Mashburn, Cumming
Franklin	
Fulton	Howard Hailey, Atlanta
	Major F. Fowler, Atlanta
	H. C. Sauls, Atlanta
	Stephen T. Brown, Atlanta
	W. E. Person, Atlanta
	Edgar H. Greene, Atlanta
	J. G. McDaniel, Atlanta
	C. C. Aven, Atlanta
	Chas. E. Rushin, Atlanta
Glynn	T. W. Collier, Brunswick
Gordon	W. D. Hall, Calhoun
Grady	
Greene	
Gwinnett	
Habersham	W. H. Garrison, Clarkesville
Hall	E. W. Grove, Gainesville
Hancock	C. S. Jernigan, Sparta
Haralson	O. D. King, Bremen
Hart	
Henry	R. V. Brandon, McDonough
Houston-Peach	
Jackson-Barrow	O. C. Pittman, Commerce
Jasper	
Jefferson	
Jenkins	A. P. Mulkey, Millen
Lamar	J. A. Corry, Barnesville
Laurens	R. G. Ferrell, Jr., Dublin
Macon	
McDuffie	Frank N. Gibson, Thomson
Meriwether	
Mitchell	J. C. Brim, Pelham
Monroe	
Montgomery	H. C. Sharpe, Alston
Morgan	W. C. McGeary, Madison
Muscogee	
Newton	
Ocmulgee Society:	
(Bleckley-Dodge-Pulaski Counties)	J. M. Smith, Cochran
Polk	
Rabun	
Randolph	Loren Gary, Jr., Shellman
Richmond	
Rockdale	
Screven	
South Georgia Medical Society:	
(Berrien, Clinch, Cook, Echols, Lanier and Lowndes Counties)	
Spalding	T. I. Hawkins, Griffin
Stephens	
Stewart-Webster	
Sumter	R. C. Pendergrass, Americus
Talbot	
Tattnall	A. C. Branch, Glennville
Taylor	S. H. Bryan, Reynolds
Telfair	S. T. Parkerson, McRae
Terrell	J. C. Tidmore, Dawson
Thomas	
Tift	W. F. Zimmerman, Tifton
Toombs	
Tri Society	W. H. Wall, Blakely
(Calhoun, Early, Miller Counties)	
Tri Society	
(Liberty, Long, McIntosh Counties)	
Troup	W. P. Phillips, LaGrange
Turner	J. H. Baxter, Ashburn
Upson	R. L. Carter, Thomaston
Walker-Catoosa-Dade	R. C. Shepard, LaFayette
Walton	Philip R. Stewart, Monroe
Ware	W. F. Reavis, Waycross

Counties	*Names and Addresses*
Warren	
Washington	
Wayne	
Whitfield	D. Lloyd Wood, Dalton
Wilcox	
Wilkes	H. L. Cheves, Union Point
Worth	

*This list includes the names of all delegates reported to date.

ANNOUNCEMENTS

Meetings will be held in the Municipal Auditorium.

Be sure to go to the Registration Desk immediately after your arrival, present your 1941 membership card, register and procure a badge.

Discussion of papers is open to all members and guests of the Association; it is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and the stenographer.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced, and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

IMPORTANT NOTICE!

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure delegates' badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS

Municipal Auditorium, Macon

WEDNESDAY, MAY 14, 8:30 A.M.
Municipal Auditorium
Opening Meeting

WEDNESDAY, MAY 14, 8:00 P.M.

Presentation of the President's Gold Key to Job Caldwell Patterson, Cuthbert, by S. P. Kenyon, Dawson.

THURSDAY, MAY 15, 12:00 NOON
Municipal Auditorium
President's Address
Job Caldwell Patterson, Cuthbert

The President's Address will be at an open session to which the public and visitors are invited.

Memorial Exercises
B. H. Minchew, Waycross, Chairman
Committee on Necrology
Music by Wesleyan Conservatory

ENTERTAINMENTS

TUESDAY, MAY 13, 9:00 P.M.
Tavern Room, Hotel Dempsey

The Woman's Auxiliary to the Bibb County Medical Society will entertain members of the Medical Association of Georgia and their wives.

WEDNESDAY, MAY 14, 6:30 P.M.

Annual dinner of the alumni of Emory University School of Medicine, Civic Room, Hotel Dempsey. Thos. L. Ross, Jr., Macon, Chairman.

Annual dinner of the alumni of the University of Georgia School of Medicine, Mirror Room, Hotel Dempsey. H. G. Weaver, Macon, Chairman.

THURSDAY, MAY 15, 7:30 P.M.
Idle Hour Club

Buffet Supper and Floor Show. Chas. H. Richardson, Master of Ceremonies.

Dance—10:00 to 1:00.

MEETINGS OF THE HOUSE OF DELEGATES

Municipal Auditorium

TUESDAY, MAY 13, 2:00 P.M.

First meeting of the House of Delegates.

1. Call to order by the President.
2. Roll call.
3. Appointment of Reference Committees.
4. Reports of officers:
   - President.
   - President-Elect.
   - Vice-Presidents.
   - Parliamentarian.
   - Secretary-Treasurer: Financial report.
   - Reports of Delegates to the A.M.A.
5. Reports of committees:
   - Scientific Work.
   - Public Policy and Legislation.
   - Arrangements.
   - Medical Defense.
   - Hospitals.
   - Necrology.
   - Cancer Commission.
   - History.
   - Abner Wellborn Calhoun Lectureship.
   - Awards.
   - Advisory—State Board of Health.
   - Advisory—Woman's Auxiliary.
   - Medical Economics.
   - Post-Graduate Study.
   - Orthopedics—Advisory, State Department of Public Welfare.
   - Ophthalmology — Advisory, State Department of Public Welfare.
   - Syphilis.
   - Industrial Relations.
   - Tuberculosis.
   - Scientific Exhibit.
   - Special Committees.

6. Reports of Fraternal Delegates.
7. Unfinished Business.
8. New Business.

TUESDAY, MAY 13, 8:00 P.M.
MUNICIPAL AUDITORIUM

Second Meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Study of Maternal Mortality — Chairman of Committee.
4. Report of President of Woman's Auxiliary.
5. Reports of committees continued.
6. Unfinished business.
7. New business.

FRIDAY, MAY 16, 8:00 A.M.
HOTEL DEMPSEY

Third Meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Reports of committees.
4. Unfinished business.
5. New business.

OFFICIAL REPORTER

Miss Winifred H. McLean.....Gastonia, N. C.

MEETING OF THE COUNCIL
MUNICIPAL AUDITORIUM

The first meeting of the Council will be held in the Municipal Auditorium, Tuesday, May 13, 6:30 P.M. Each Councilor will render a report of conditions in each county of his district. Other meetings of the Council will be held on the call of the chairman.

WEDNESDAY, MAY 14, 8:30 A.M.
MUNICIPAL AUDITORIUM
Macon

SCIENTIFIC PROGRAM

The papers for each meeting must be read as scheduled on the program.

Call to order by the President, Job Caldwell Patterson, Cuthbert.

Invocation
Rev. Albert Harris, Macon
Pastor, First Presbyterian Church
Addresses of Welcome
H. G. Weaver, Macon
President, Bibb County Medical Society
Hon. Chas. Bowden, Macon
Mayor, City of Macon
Response to Addresses of Welcome
Zeb V. Johnston, Calhoun

SCIENTIFIC PROGRAM

1. Further Observations on the Treatment of Cancer of the Breast.
   Thos. Harrold, Jr., Macon.
   To lead the discussion:
   J. L. Campbell, Atlanta.
   A. D. Little, Thomasville.

2. The So-Called Psychopathic Personality.
   Hervey Cleckley, Augusta.
   To lead the discussion:
   H. D. Allen, Jr., Milledgeville.
   N. M. Owensby, Atlanta.

3. Abdominal Pain.
   Floyd W. McRae, Atlanta.
   To lead the discussion:
   Kenneth McCullough, Waycross.
   J. T. McCall, Rome.

4. Trends in Medical Education in Georgia.
   (a) Undergraduate Medical Education.
   G. Lombard Kelly, Augusta.
   (b) Graduate Medical Education.
   Russell H. Oppenheimer, Emory University.
   To lead the discussion:
   W. F. Reavis, Waycross.
   Grady N. Coker, Canton.

5. Air Embolism as a Cause of Death.
   J. G. McDaniel, Atlanta.
   To lead the discussion:
   Francis P. Parker, Emory University.
   J. F. Hackney, Atlanta.

6. Medical Preparedness.
   James E. Bayliss, Colonel, Medical Corps, U. S. Army.
   Introduction by Edgar H. Greene, Atlanta.

WEDNESDAY, MAY 14, 12:00 NOON
MUNICIPAL AUDITORIUM
ABNER WELLBORN CALHOUN LECTURE
The Management of Intrathoracic Tumors
John Alexander, Ann Arbor, Mich.
Professor of Surgery, University of Michigan
Introduction by James E. Paullin, Atlanta.

WEDNESDAY, MAY 14, 2:30 P.M.
MUNICIPAL AUDITORIUM

1. Peripheral Vascular Disease and the Sympathetic Nervous System.
   R. F. Slaughter, Augusta.
   To lead the discussion:
   J. C. Patterson, Cuthbert.
   D. Henry Poer, Atlanta.

2. Pain-Malady· Surgical Relief of Same.
   J. Calvin Weaver, Atlanta.
   To lead the discussion:
   J. K. Quattlebaum, Savannah.
   Chas. H. Richardson, Macon.

3. The Management of Two Common Types of Fractures.
   (a) Fractures About the Wrist.
   F. G. Hodgson, Atlanta.
   (b) Fractures About the Ankle.
   T. P. Goodwyn, Atlanta.

To lead the discussion:
J. I. Hall, Macon.
C. H. Watt, Thomasville.

4. The Types of Sterility in the Female that Are Amenable to Treatment.
Edgar H. Greene, Atlanta.
To lead the discussion:
Wm. H. Myers, Savannah.
O. R. Thompson, Macon.

5. Clinical Studies of Secondary Anemia.
Allen H. Bunce, Atlanta.
Mark S. Dougherty, Jr., Atlanta.
Robt. C. Davis, Atlanta.
To lead the discussion:
Shelton P. Sanford, Savannah.
C. W. Strickler, Jr., Atlanta.

WEDNESDAY, MAY 14. 8:00 P.M.
Municipal Auditorium

Presentation of the President's Gold Key to the President, Job Caldwell Patterson, Cuthbert, by S. P. Kenyon, Dawson.

The Plight of the Arthritic—Lantern Slides
Russell L. Cecil, New York City
Professor of Clinical Medicine, Cornell University Medical College, Ithaca—New York.
Introduction by Glenville Giddings, Atlanta.

The Special Field of Cardiac Surgery
Daniel C. Elkin, Atlanta
Professor of Surgery, Joseph B. Whitehead Chair, Emory University School of Medicine, Emory University.
Introduction by Chas. H. Richardson, Macon.

Multiple Factors in Deficiency Disease
Virgil P. Sydenstricker, Augusta
Professor of Medicine, University of Georgia School of Medicine, Augusta.
Introduction by Thos. Harrold, Jr., Macon.

THURSDAY, MAY 15, 8:30 A.M.
Municipal Auditorium

1. Kidney Problems.
(a) Nephropexy: A Valuable Procedure for the Relief of Symptoms Resulting from Extreme Renal Mobility—Lantern Slides.
Samuel J. Sinkoe, Atlanta.
(b) When to Operate for Renal Calculi.
Rudolph Bell, Thomasville.
(c) Suppurative Processes in and Around the Kidney.
Spencer A. Kirkland, Atlanta.
To lead the discussion:
J. Righton Robertson, Augusta.
S. Elliott Wilson, Savannah.

2. Orthostatic Hypotension.
Joseph C. Massee, Atlanta.
To lead the discussion:
John E. Walker, Columbus.
H. T. Harper, Jr., Augusta.

3. Pneumothorax.
(a) The Management of Artificial Pneumothorax Refills.
C. M. Sharp, Alto.
(b) Artificial Pneumothorax in the Treatment of Dry Pleurisy.
Linton Smith, Atlanta.
To lead the discussion:
J. A. Redfearn, Albany.
H. C. Schenck, Atlanta.

4. Public Health and the Defense Program.
Louis L. Williams, Jr., Senior Surgeon, U. S. Public Health Service.
Introduction by Edgar D. Shanks, Atlanta.

THURSDAY, MAY 15, 12:00 NOON
Municipal Auditorium
President's Address
Georgia's Medical Problems of Today
Job Caldwell Patterson, Cuthbert.

Memorial Exercises
B. H. Minchew, Waycross
Chairman, Committee on Necrology.
Music by Wesleyan Conservatory

THURSDAY, MAY 15, 1:00 P.M.
Christ Church, Parish House
Walnut Street, between Second and Third
Luncheon Panel Discussion
In Field of Internal Medicine
Conducted by
Roy R. Kracke, Emory University.
Virgil P. Sydenstricker, Augusta

During the luncheon physicians will write out questions covering any phase of internal medicine that they wish to hear discussed. These will be collected and given to the guest speakers for discussion.

Luncheon Panel Discussion
Appendicitis
Y. W. C. A., Rotary Hall
Cherry Street, one-half block from Hotel Dempsey
Conducted by
T. C. Davison, Atlanta
John H. Sherman, Augusta

During the luncheon physicians will write out questions covering any phase of the diagnosis and treatment of appendicitis that they wish to hear discussed. The questions will be collected and given to the guest speakers for discussion.

THURSDAY, MAY 15, 2:30 P.M.
Municipal Auditorium

1. Pediatric Problems.
(a) Neonatal Asphyxia.
Howard J. Morrison, Savannah.
(b) The Treatment of Pneumonia in Children.

C. M. Burpee, Augusta.

(c) Chemotherapy in the Treatment of Dysentery in Children.
M. Hines Roberts, Atlanta.

(d) The Treatment of Various Infections in Children with Sulfathiazole.
R. C. McGahee, Augusta.
To lead the discussion:
A. M. Johnson, Valdosta.
Don Cathcart, Atlanta.

2. Granulosa Cell Tumors of the Ovary.
Walter Holmes, Atlanta.
A. E. Hauck, Atlanta.
To lead the discussion:
Edgar R. Pund, Augusta.
J. C. Norris, Atlanta.

3. Clinical and Roentgenological Aspects of Intestinal Obstruction.
Milford B. Hatcher, Macon.
Max Mass, Macon.
To lead the discussion:
Frank K. Boland, Atlanta.
L. P. Holmes, Augusta.

4. The Induction of Labor by Bougies.
T. Schley Gatewood, Americus.
Richard Torpin, Augusta.
To lead the discussion:
H. F. Sharpley, Jr., Savannah.
W. F. Shallenberger, Atlanta.

FRIDAY, MAY 16, 9:00 A.M.
MUNICIPAL AUDITORIUM

1. The Present-Day Treatment of Pneumonia.
Avary Dimmock, Atlanta.
To lead the discussion:
W. W. Chrisman, Macon.
W. M. Cason, Sandersville.

2. Coronary Thrombosis.
Evert A. Bancker, Jr., Atlanta.
To lead the discussion:
H. C. Atkinson, Macon.
J. Reid Broderick, Savannah.

3. Diabetes Mellitus in the Negro.
T. Luther Byrd, Atlanta.
To lead the discussion:
G. O. Whelchel, Athens.
Thos. L. Ross, Jr., Macon.

4. The Choice of an Anesthetic.
Wm. Perrin Nicolson, Jr., Atlanta.
To lead the discussion:
Hayward Phillips, Atlanta.
C. F. Holton, Savannah.

5. The Surgical Management of Gastric and Duodenal Lesions.
Lon Grove, Atlanta.
To lead the discussion:
O. H. Weaver, Macon.
Lester Harbin, Rome.

6. Cancer of the Mouth.
J. Elliott Scarborough, Emory University.
To lead the discussion:
Calvin B. Stewart, Atlanta.
Chas. C. Harrold, Macon.

ALTERNATES

1. Tuberculosis—Model 1941.
Champ H. Holmes, Atlanta.
2. The Practical Management of Severe Head Injuries.
Exum Walker, Atlanta.
3. The Care of Eye Injuries.
Wm. O. Martin, Jr., Atlanta.
4. The Relation of Hypertension to Urologic Conditions.
Earl Floyd, Atlanta.
James L. Pittman, Atlanta.
5. The Endocrine Problems of Prostatic Hypertrophy.
Ernest Felber, Atlanta.

FRIDAY, MAY 16, 12:00 NOON
MUNICIPAL AUDITORIUM
ELECTION OF OFFICERS

President-Elect.
First Vice President.
Second Vice President.
Parliamentarian.
One Delegate to the A.M.A.
One Alternate Delegate to the A.M.A.
*Councilors for the Ninth and Tenth Districts.
Selection of meeting place for 1942.

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*Nominated by their respective district societies.

CONSTITUTION AND BY-LAWS

Chapter II. Section 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Chapter VIII. Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Chapter VIII. Section 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

No miscellaneous or business matters will be discussed before the scientific meetings, but will be referred to the House of Delegates.

Resolution Adopted 1921

Resolved: That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

Notice to Members Participating in the Scientific Exhibit

Three certificates of merit, to be known as first, second and third prizes, will be given by the Committee on Scientific Work to the three outstanding exhibits at this session of the Medical Association of Georgia. These will be judged on the first day of the session.

We are instructed by the President to announce to all essayists that the sessions of the Scientific Program of the Association will begin on time, and that the above regulations of the By-Laws in reference to the program will be strictly enforced.

Committee on Scientific Work
Glenville Giddings, Atlanta, Chairman
Wm. R. Dancy, Savannah.
Richard Binion, Milledgeville
Edgar D. Shanks, Atlanta, Secretary-Treasurer.

SCIENTIFIC EXHIBIT

(a) *Pathologic Exhibit: Postmortem and Surgical Museum Exhibit with Histories and Clinical Data.*

(b) *X-ray Findings in the Acute Abdomen; Case Illustrations with Historical, Surgical and Autopsy Data.*
The Macon Hospital, Macon; C. L. Ridley and Max Mass.

Gastro-intestinal Lesions.
The Georgia Radiological Society.

The Educational Program of the Fifth District to Reduce the Mortality Rate from Appendicitis in Georgia.
Fred F. Rudder, Atlanta.

Orthopedic Surgery.
Calvin Sandison, Atlanta.

Exhibit of Americus Cancer Clinic.

Vulvovaginitis.
Robt. B. Greenblatt, Augusta, University of Georgia School of Medicine.

Simplified Ballisto Cardiograph.
W. F. Hamilton and Philip Dow, Augusta, University of Georgia School of Medicine.

Infant Resuscitation.
Perry Volpitto and Richard Torpin, Augusta, University of Georgia School of Medicine.

Common Vitamin Deficiencies.
V. P. Sydenstricker, Augusta, University of Georgia School of Medicine.

Neurologic Problems.
Exum Walker, Atlanta.

Cesarean Section, Motion Picture.
R. L. Kennedy, Metter.

Educational Exhibit of the Cancer Commission of the Medical Association of Georgia.
J. L. Campbell, Atlanta.

Operative Correction of Crossed Eyes.
William O. Martin, Atlanta.

Hospitalization For All.
Presented by the Hospital Committee of the Medical Association of Georgia.

The Use of Photoroentgenography in the Diagnosis and Treatment of Tuberculosis.
Georgia State Tuberculosis Sanatorium, Alto.

Prognosis in Heart Disease.
Carter Smith, H. C. Sauls and Charles F. Stone, Atlanta.

An Improved Vehicle for Medication of the Vagina.
George A. Williams, Atlanta.

Skin Tumors.
Philip H. Nippert, Atlanta.

Sound Tracings of the Heart.
William R. Crowe and L. Minor Blackford, Atlanta.

Diseases of the Skin.
Howard Hailey and Hugh Hailey, Atlanta.

Cancer of the Mouth.
Robert Winship Clinic, Emory University School of Medicine, Emory University.

Intravaginal Pressure Plus Heat in Gynecologic Conditions.
B. T. Beasley, Atlanta.

Skin Eruptions of Avitaminosis.
Jack Jones and Herbert Alden, Atlanta.

Lung Cysts.
Wm. Willis Anderson, Atlanta.

The Problem of the Premature Infant in Georgia.
State Department of Public Health. Robert V. Schultz, Atlanta.

Laryngeal Tumors.
Murdock Equen, Frank Neuffer and L. P. Matthews, Atlanta.

Varicose Veins.
Chas. E. Rushin, Atlanta.

The Use of the Cartilage Transplant in Plastic Surgery.
W. G. Hamm, Atlanta.

Medical History.
J. Calvin Weaver, Atlanta.

Medical Illustrations.
Kathleen Mackay, Emory University.

COMMERCIAL EXHIBIT

1. Southeastern Optical Company, Rhodes Building Annex, Atlanta, Georgia.
2. Rhinopto Company, 308 South Hardwood, Dallas, Texas.
3. Petrolagar Laboratories, 8134 McCormick Boulevard, Chicago, Illinois.
4. Lederle Laboratories, 30 Rockefeller Plaza, New York City; 139 Forrest Avenue, N. E., Atlanta, Georgia.
5. Harrower Laboratory, Glendale, California.
   Loeser Laboratory, Inc., 37-43 West 26th Street, New York City.
7. Endo Products, Inc., 84-40 101st Street, Richmond Hill, New York; H. H. Leonard, Emory Court, Apt. 28, 2080 North Decatur Road, Atlanta, Georgia.
8. Max Wocher & Son Company, 29-31 West 6th Street, Cincinnati, Ohio; Ben Perryman, P. O. Box 242, Atlanta, Georgia.
9. Van Pelt & Brown, 503 East Franklin Street, Richmond, Virginia.
10. American Surgical Supply Company, 378 Peachtree Street, N. E., Atlanta, Georgia. (Next to Medical Arts Building).
11. S. & H. X-Ray Company, 501 Peachtree Street, N. E., Atlanta, Georgia.

12. Ciba Pharmaceutical Products, Summit, New Jersey; Cecil R. Mozley, 390 Redland Road, N. W., Atlanta, Georgia.
13. Wachtel's Physician Supply Company, P. O. Box 623, Savannah, Georgia.
14. John Wyeth & Brothers, 1600 Arch Street, Philadelphia, Pennsylvania.
15. Mead Johnson & Company, Evansville, Indiana.
15½. Philip Morris & Company, 119 Fifth Avenue, New York City.
16. Doho Chemical Corporation, 58 Varick Street, New York City.
17. Estes Surgical Supply Company, 56 Auburn Avenue, N. E., Atlanta, Georgia.
18. General Electric X-Ray Corporation, 2012 Jackson Boulevard, Chicago, Illinois; 205 Spring Street, N. W., Atlanta, Georgia.
20. Surgical Supply Company, 139 Forrest Avenue, N. E., Atlanta, Georgia.
21. The Mennen Company, 345 Central Avenue, Newark, New Jersey.
22. A. S. Aloe Company, 1813-1823 Olive Street, St. Louis, Missouri.
23. H. J. Heinz Company, Pittsburgh, Pennsylvania.
24. Schering Corporation, Bloomfield, New Jersey.
25. The Wm. S. Merrell Company, Cincinnati, Ohio.
26. Westinghouse Electric & Manufacturing Company, X-Ray Division, 565 West Peachtree Street, N. E., Atlanta, Georgia.
27. C. B. Fleet Company, Lynchburg, Virginia; W. E. Avery, 136 Ponce de Leon Court, Decatur, Georgia.
28. The Borden Company, 350 Madison Avenue, New York City.
29. Holland-Rantos Company, 551 Fifth Avenue, New York City.

IN MEMORIAM*

Anderson, Emmett Bernard, Americus, February 21, 1941, aged 49.

Askew, Pleasant Henry, Sr., Nashville, August 11, 1940, aged 68.

Barfield, Forrest Mullins, Atlanta, April 17, 1941, aged 50.

Binion, Willet W., Benevolence, August 13, 1940, aged 80.

Boynton, Charles Edward, Jr., Atlanta, September 25, 1940, aged 40.

Cochran, James S., Norcross, August 27, 1940, aged 62.

Crumbley, James Jernigan, Sylvester, February 17, 1941, aged 54.

Edmondson, Henry Turner, Moultrie, January 18, 1941, aged 53.

Evans, Horace E., Perry, December 15, 1940, aged 56.

Evans, R. Earl, Milledgeville, July 18, 1940, aged 58.

Foster, Luke Irdel, Ellijay, December 10, 1940, aged 33.

Franklin, Virgil Eugene, Graymont, November 13, 1940, aged 70.

Gausemel, Selmer Dean, Atlanta, January 18, 1941, aged 49.

Gewinner, Napoleon Gustavas, Macon, August 19, 1940, aged 83.

Griffith, Charles Floyd, Griffin, January 1, 1941, aged 56.

Hall, James Knox, Lyons, February 25, 1941, aged 63.

Hancock, Thomas Hightower, Atlanta, November 17, 1940, aged 71.

Hutto, William Earl, Atlanta, August 31, 1940, aged 36.

Jackson, Jasper Lee, Manchester, June 2, 1940, aged 69.

Jones Buford B., Metter, June 26, 1940, aged 66.

Jones, Randolph D., Reidsville, March 23, 1940, aged 63.

Kemp, William M., Marietta, July 28, 1940, aged 78.

Kennedy, Bert Luther, Dalton, October 17, 1940, aged 60.

Kennon Benning M., McRae, June 29, 1940, aged 78.

Kicklighter, Raymond Braxton, Glennville, October 29, 1940, aged 46.

Lewis, Albert W., Atlanta, May 13, 1940, aged 29.

Lightner, Lester Lance, Ideal, April 12, 1940, aged 57.

Lott, Walter H., Monroe, January 9, 1941, aged 60.

Luke David P., Camilla, September 14, 1940, aged 54

McCurdy, Edward Colfax, Shellman, June 2, 1940, aged 71.

Moon, Pleasant Leonidas, Atlanta, September 22, 1940, aged 71.

Moran, Owen F., Milledgeville, October 31, 1940, aged 74.

Murray, George Massalon, Atlanta, September 14, 1940, aged 66.

Otwell, James A., Cumming, January 24, 1941, aged 58.

Palmour, William A., Gainesville, February 1, 1941, aged 75.

Parramore William Van Vorst, Cochran, November 27, 1940, aged 56.

Pickett, Clarence Ernest, Richland, April 26, 1940, aged 70.

Ridgway, George T., Royston, May 12, 1940, aged 69.

Roberts, Stewart Ralph, Atlanta, April 14, 1941, aged 62.

Robinson, Hugo, Albany, January 8, 1941 aged 86.

Scott, Wilbur Moate, Milledgeville, October 31, 1940, aged 50.

Seawright, Eugene Chester, Fayetteville, September 2, 1940, aged 59.

Shamblin, Benjamin F., Lyerly, May 20, 1940, aged 81.

Terry, Huston B., Acworth, March 18, 1941, aged 65.

Tolleson, Henry Madison, Eastman, September 1, 1940, aged 38.

Walker, Obie Byron, Bowman, February 5, 1941, aged 67.

Woods, Charles Jefferson, Macon, November 6, 1940, aged 60.

Wright, John Coskery, Augusta, August 22, 1940, aged 57.

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*This list of deceased physicians has been compiled since our 1940 annual session as their names appear on our records. Please notify the Secretary-Treasurer of any errors or omissions.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA

Constitution

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be the Medical Association of Georgia.

ARTICLE II.—PURPOSES OF THE ASSOCIATION

The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Association, and shall consist of: (1) delegates elected by the component county societies; (2) the officers of the Association enumerated in Section 1 of Article IX of the Constitution; (3) ex-presidents and delegates to the American Medical Association.

ARTICLE VI.—COUNCIL

The Council shall be the Board of Trustees and Finance Committee of the Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates be called into session as provided in the Constitution and By-Laws.

It shall consist of the Councilors, the President, the President-Elect and the Secretary-Treasurer of the Association. Five of its members shall constitute a quorum.

ARTICLE VII.—SESSIONS AND MEETINGS

Section 1. The annual session shall take place on the second Wednesday in May at such place as shall be designated by the Association, provided that in case of conflict with the annual session of the American Medical Association or on petition of the county society of the host city made at least six months before the fixed dates for the annual session, the Council may change the dates by publishing a notice in the Journal of the Medical Association of Georgia three months before the session.

Sec. 2. Special meetings of either the Association or the House of Delegates may be called by a two-thirds vote of the Council, or upon the petition of twenty delegates.

ARTICLE VIII.—SECTIONS AND DISTRICT SOCIETIES

Section 1. The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor district societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.—OFFICERS

Section 1. The officers of this Association shall be a President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and one Councilor for each congressional district in the State.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual meeting of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume his office as President immediately after the next annual meeting following his election. The terms of the Councilors shall be for three years, as may be arranged, viz: the Councilor for the first, second, third and fourth districts for three years; those for the fifth, sixth, seventh, and eighth districts for one year; those for the ninth and tenth districts for two years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed. (1933.)

Sec. 3. The officers of this Association shall be elected by ballot at 12 o'clock noon on the third day of the annual session. Nomination for office shall be made orally, but the nominating speech must not exceed two minutes. The Councilors shall be elected at the same time on nomination by their respective district societies at the annual meetings of such societies preceding the annual session of the Association at which the vacancies occur, but if no nomination from a district society is brought before the Association, the nomination for Councilor may be presented from the floor. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner.

Sec. 4. The members of the State Board of Health

shall be nominated by their respective district societies at the annual meeting of such societies preceding the annual session of this Association, and in failure of nomination by district societies, they may be nominated by the delegates present from each of the district societies, all of which shall be ratified by this Association.

ARTICLE X.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of $10.00 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be approved by the Finance Committee before action is taken thereon.

ARTICLE XI.—RATIFICATION

The House of Delegates shall submit all questions before it to the Association for ratification.

ARTICLE XII.—THE SEAL

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.—AMENDMENTS

Any amendment that may be offered to the Constitution shall lie over until the next annual session; and for its adoption at such session shall require a two-thirds vote of all present and voting.

By-Laws

CHAPTER I.—MEMBERSHIP

Section 1. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Special memberships. In addition to regular members, component societies may elect to membership in their organizations, for membership in this Association, the following groups of members:

(a) *Honorary members.* Any member for old age, length of service, or other good reasons, may be elected an honorary member of his county medical society, for membership in this Association. Such member shall, after election, be issued a certificate of honorary membership in this Association.

Non-resident physicians and resident or non-resident lay persons who have distinguished themselves in fields of endeavor devoted to the advancement of human welfare, may be nominated by county medical societies, or by the House of Delegates of this Association, for honorary membership in this Association. A county medical society shall not nominate for this class of membership more than one person each year. The name of such person shall be sent to the Secretary-Treasurer of this Association thirty days in advance of the annual session. Such person shall be issued an appropriate certificate of honorary membership in this Association if, and when, he is elected to honorary membership by this Association.

(b) *Associate members.* Eligible to this classification are (1) those regular members of component societies to whom the payment of dues would be an undue hardship; (2) interns, and (3) commissioned medical officers (see Chapter VII, Sec. 5 of these By-Laws) of the United States Army, the United States Navy and the United States Public Health Service while engaged actively in their respective services or if they have been retired on account of age or physical disability, or, after long and honorable service, under the provisions of an Act of Congress.

(c) Honorary and Associate members shall not be subject to the payment of dues to the State Association. They shall enjoy the privilege of full participation in the scientific, social and educational activities of this Association. They shall not vote or hold office and do not receive the JOURNAL or benefits of Medical Defense.

Sec. 5. Any physician applying for membership in a component medical society of this Association, who has previously practiced in a county in which affiliation with a component society is provided, and who moves to another county without having affiliated with the medical society in the jurisdiction of previous residence, before he is admitted to membership, the cause for his lack of affiliation in the society of his previous residence shall be ascertained.

CHAPTER II.—GENERAL MEETINGS

Section 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. Visitors duly accredited to represent the associations of other states, or of the District of Columbia, not exceeding two in number for each organization, may attend upon, and participate in, the discussion of the general meetings, but shall not have a vote. Such delegates may read papers upon invitation of the Committee on Scientific Work. The general meetings shall be presided over by the President or by one of the Vice-Presidents.

Sec. 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each

essayist shall have five minutes in which to close the discussion of his paper.

Sec. 3. Entertainments. Any social entertainment which may be given by this Association shall be confined to the evening of the second day.

Sec. 4. Guests. Any physician not a resident of this State but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session.

CHAPTER III.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet on the day preceding the first day of the annual session, the time to be fixed by the Committee on Scientific Work. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegate from any county not be present at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. Twenty delegates present shall constitute a quorum.

Sec. 4. It shall, through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests of such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality. and shall continue these efforts until, if possible, every physician in every county of the State has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councilor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

CHAPTER IV.—DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

In order to give him a better opportunity of becoming more fully acquanted with his duties and with the needs of the Association, the President shall be elected one year prior to taking office. During this time he shall be known as President-Elect and shall be ex-officio member of the standing committees, and shall make recommendations at the next annual session.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-Presidents, in their order, shall succeed him.

Sec. 3. The Secretary-Treasurer shall give bond in the sum of One Thousand Dollars. He shall demand and receive all funds due the Association, together with the bequests and donations.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members, delegates and accredited visitors at the annual session. He shall, with the cooperation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an

account with the component societies, charging against each society its assessment and collect the same. Acting with the Committee on Scientific Work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the JOURNAL. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom and all moneys disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of May and the last day of April.

CHAPTER V.—COUNCIL

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of the Association to organize and outline work for the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. It shall be the business body of the Association and attend to the business of the Association in the interim between meetings.

Sec. 2. Each Councilor shall be organizer and peacemaker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the conditions of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates on a properly itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association. Each Councilor may appoint a Vice-Councilor to assist him in the performance of his duties in his district.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an individual Councilor, or to which attention has been called by the Councilor or interested members. It shall hear and decide all questions affecting unethical conduct on the part of any members at any annual session, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and the societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA, which is the organ of the Association, and all money paid into the treasury as dues shall be received as subscriptions to the JOURNAL.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Finance Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary-Treasurer, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Sec. 7. All commercial exhibits during the annual sessions shall be within the control and direction of the Council.

Sec. 8. In the absence of a Councilor and Vice-Councilor the President is empowered to appoint a representative from the district as acting Councilor, who shall have full rights and power of a Councilor.

Sec. 9. Each Councilor shall render at every session a written report of each county in his district.

Sec. 10. Any member of the Council who fails to attend two regular sucessive sessions of the Council, or whose district does not show evidence of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, is subject to have his position declared vacant by the President and a successor appointed by the President.

CHAPTER VI.—COMMITTEES

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of four members, one of whom shall be the Secretary-Treasurer. The other three members shall be appointed for terms of one, two, and three years, respectively. The vacancy which will occur each year by the expiration of the term of one member shall be filled by the President with an appointment for three years. The member who has the shortest time to serve shall be Chairman. The committee shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

This By-Law shall not prohibit the Committee on Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health of the State of Georgia, and a sub-committee of three members from each Councilor District appointed by the chairman when needed. It shall represent the Association in securing and enforcing legislation in the interests of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates and their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as Chairman of the Committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916), shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical Defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members; to take full charge of such cases, which after investigation, they decide to be proper cases for defense; to defend all such cases in the courts of last resort, to furnish General Counsel and pay court cost usual to such litigation, and reasonable fees for local attorneys as shall be arranged by General Counsel. Provided that any member who has indemnity insurance shall have such insurance bear its portion of the expense. However, they shall not pay, or obligate the Medical Association of Georgia to pay, any judgment rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law.

The assistance for defense, as herein provided, shall be available only to members of the Medical Association of Georgia in good standing. Any member who has not paid his annual dues by April 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the Committee for this purpose. The members sued, or threatened with suit, shall be consulted and shall have the complete confidence of the Committee in all transactions connected with the investigation in question. The Committee shall have the authority to require of a constituent society or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the enforcement of the Medical Practice Act of this State.

CHAPTER VII.—COUNTY SOCIETIES

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one component medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every legally registered white physician who does not practice or claim to prac-

tice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Physicians who have been legally registered in other states or who have been licensed by the National Board of Medical Examiners, or who are employed as teachers in the medical schools, or are in the service of the State, a county, a municipality, or the United States Government other than the regular medical corps of the United States Army, the United States Navy and the United States Public Health Service, may be accepted for membership in county medical societies, for membership in this Association, provided they meet the requirements of regular membership. Before a charter is issued to any county medical society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. No matter what the unethical conduct or discipline of the members of the county society may be, both plaintiff and defendant shall have the right to appeal to the Council, whose decision shall be final when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves, such members shall be considered to be in good standing in the county society from which he was certified and in the Medical Association of Georgia to the end of the period for which his dues have been paid.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual session of this Association, each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and lists of non-affiliated physicians of the county, to the Secretary of this Association each year, thirty days before the annual session.

Sec. 14. Any county society which fails to pay its assessment, or make the report required on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

CHARTER VIII.—RULES AND ETHICS

Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 3. The principles of medical ethics of the American Medical Association shall be those of this Association.

Sec. 4. Any member of this Association, on locating in a new place for practicing his profession, may place his professional card, containing name, address, telephone number, and statement as to whether or not his practice will be limited to any particular class of diseases, in the local paper for a period of not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory, or other public places, shall be considered unethical.

CHAPTER IX—AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the Association after the amendment has lain on the table for one day.

RESOLUTIONS, MEDICAL ASSOCIATION OF GEORGIA 1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper, shall pay the penalty of not having an opportunity to appear on the program for two years,

unless he presents an excuse acceptable to the Committee on Scientific Work.

1922

Be it Resolved, That the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Councilor district; that a definite time be assigned for reading and discussion of each of these papers, and they be given precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged. The President ruled that this resolution is only a recommendation and not a law.

1928

Resolved, That the delegates to the A. M. A. elected at this and succeeding meetings of the Medical Association of Georgia be installed January 1st, following their election. and that their term of service run for two years thereafter. And be it further

Resolved, That our delegates be authorized to attend the regular and any called meeting of the House of Delegates of the American Medical Association during the term to which they are elected.

1929

Resolved, That in order to expedite the business of the House of Delegates, all reports of special and regular committees of the Association involving matters of public policy, legislation or appropriation of the funds of the Association be submitted in writing to the Secretary of the Association a sufficient time in advance of the regular annual session, about March 15th, to permit the publication of said recommendations either in the official program prior to the session or in a special circular that shall be mailed to the constituent societies, in order that the delegates may be advised of the proposed changes.

1940

Resolved. That the House of Delegates set the amount of dues at $7.00 per capita for the year 1941.

BOOK REVIEW

Child Psychology, by Charles E. Skinner and Philip Lawrence Harriman. Published by: The MacMillan Company, 1941. Price $3.00.

This book is striking for its orderly sequence in the face of collaboration by several authors. This latter has made a distinct advantage. It is exhaustive in its discussion and for this reason is adaptive to every field of activity which touches the child: clinical, psychological, pedagogical, etc.

The presentation is broad but at the same time sound and practical. It is a book which can be of great value to the individual seeking knowledge along the lines discussed.

W. W. Young, M.D.

THE FOUNDATION PRIZE OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS AND ABDOMINAL SURGEONS

(1) "The award which shall be known as 'The Foundation Prize' shall consist of $150.00."

(2) "Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal Surgery."

(3) "Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant."

(4) "Manuscripts must be limited to 5,000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis."

(5) "The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the Journal of the Author's choice. Unsuccessful contributions will be returned promptly to their authors."

(6) "Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the Secretary before June 1st."

(7) "The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation."

(8) "The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting."

Jas. R. Bloss, M.D., *Secretary*.

418 Eleventh Street, Huntington, W. Va.

REPRINTS FOR ARMY MEDICAL LIBRARY

The Surgeon General, War Department, Army Medical Library, Washington, D. C., requests copies of all reprints our members may have made. When you have reprints made of any article published in The Journal of The Medical Association of Georgia, send copy to the Army Medical Library, Washington, D. C. The reprints will be placed in a special collection catalogued and thus form a ready bibliography of the work of any given writer and a valuable supplementary source of material when the volume of the original publication is temporarily unavailable at the bindery or on loan.

WOMAN'S AUXILIARY : OFFICERS 1940-1941

President—Mrs. H. G. Banister, Ila.

President-elect—Mrs. Lee Howard, 625 East 44th Street, Savannah.

First Vice-President—Mrs. W. W. Chrisman, 112 Corbin Avenue, Macon.

Second Vice-President—Mrs. Fred Rawlings, Sandersville.

Third Vice-President—Mrs. D. Lloyd Wood, Dalton.

Recording Secretary—Mrs. Loren Gary, Jr., Shellman.

Treasurer—Mrs. W. Bruce Schaefer, Toccoa.

Corresponding Secretary—Mrs. L. S. Patton, Athens.

Parliamentarian—Mrs. J. E. Penland, Waycross.

Historian—Mrs. W. A. Selman, 760 Penn Ave., N. E., Atlanta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

MRS. HENRY GRADY BANISTER, Ila
President 1940-41

INVITATION

Dear Auxiliary Members:

The Seventeenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia convenes in Macon, May 13-16. I extend to every member of the Auxiliary an invitation to come to the State meeting. I assure you a hearty welcome awaits you.

The members of the Woman's Auxiliary of the Medical Society of Bibb County are anticipating a large attendance. They are planning to make your visit a very pleasant and enjoyable occasion.

It is my earnest desire for all members to make definite plans to attend our meeting. I am looking forward to seeing you in Macon.

Sincerely,

ELEANOR ESTES BANISTER, *President,*
(MRS. H. G. BANISTER)
Woman's Auxiliary to the Medical Association of Georgia.

To the Members of the Woman's Auxiliary:

The Woman's Auxiliary to the Bibb County Medical Society extends a most cordial invitation to you, as members of the medical auxiliaries of Georgia, to attend the State Convention in Macon, May 13-16.

We think our city is beautiful at this time of year, and our members are looking forward to your visit, and assure you a hearty welcome.

CATHERINE BLAIN HOLMES, *President,*
(MRS. J. P. HOLMES)
Woman's Auxiliary to the Bibb County Medical Society.

PROGRAM
SEVENTEENTH ANNUAL CONVENTION
WOMAN'S AUXILIARY TO THE
MEDICAL ASSOCIATION OF GEORGIA
HOTEL DEMPSEY, MACON

EXECUTIVE BOARD

Officers and Committees

President—Mrs. H. G. Banister, Ila
President-Elect—Mrs. Lee Howard, Savannah
First Vice-President—Mrs. W. W. Chrisman, Macon
Second Vice-President—Mrs. Fred Rawlings, Sandersville
Third Vice-President—Mrs. Lloyd Wood, Dalton
Recording Secretary—Mrs. Loren Gary, Jr., Shellman
Corresponding Secretary—Mrs. L. S. Patton, Athens
Treasurer—Mrs. W. B. Schaefer, Toccoa
Historian—Mrs. W. A. Selman, Atlanta
Parliamentarian—Mrs. J. E. Penland, Waycross
Chairman of Standing Committees
District Managers

Presidents of County Auxiliaries
Past Presidents of State Auxiliary

Chairmen of Standing Committees

Organization—Mrs. Lee Howard, Savannah
Health Education—Mrs. W. W. Chrisman, Macon
Hygeia—Mrs. Fred Rawlings, Sandersville
Scrapbook—Mrs. Lloyd Wood, Dalton
Public Relations—Mrs. Harry M. Kandel, Savannah
Legislation—Mrs. Stewart Brown, Royston
Press and Publicity—Mrs. J. Harry Rogers, Atlanta
Health Films—Mrs. G. L. Loden, Colbert
Doctor's Day—Mrs. Forrest M. Barfield, Atlanta
Research in Romance of Medicine—Mrs. C. M. Burpee, Augusta
Student Loan Fund—Mrs. Lehman W. Williams, Savannah
Jane Todd Crawford Memorial—Mrs. W. M. Cason, Sandersville
Revisions—Mrs. Ralph H. Chaney, Augusta
Archives—Mrs. J. Bonar White, Atlanta
Exhibits—Mrs. J. P. Holmes, Macon
Memorials—Mrs. A. J. Mooney, Statesboro
"Mrs. James N. Brawner Trophy"—Mrs. Eustace A. Allen, Atlanta
"The White Exhibit and Scrapbook Awards"—Mrs. J. R. McMichael, Quitman

District Managers

First District—Mrs. W. E. Simmons, Metter
Second District—Mrs. J. A. Redfearn, Albany
Third District—Mrs. Carl P. Savage, Montezuma
Fourth District—Mrs. Kenneth Grace, LaGrange
Fifth District—Mrs. J. Harry Rogers, Atlanta
Sixth District—Mrs. Fred Rawlings, Sandersville
Seventh District—Mrs. Murl M. Hagood, Marietta
Eighth District—Mrs. T. J. Ferrell, Waycross
Ninth District—Mrs. C. J. Roper, Jasper
Tenth District—Mrs. G. L. Loden, Colbert

Presidents of County Auxiliaries

Baldwin County—Mrs. Charles H. Richardson, Milledgeville
Barrow County—Mrs. W. T. Randolph, Winder
Bibb County—Mrs. J. P. Holmes, Macon
Brooks County—Mrs. J. R. McMichael, Quitman
Bullock-Candler-Evans Counties—Mrs. W. E. Floyd, Statesboro
Burke-Jenkins-Screven Counties—Mrs. L. F. Lanier, Sylvania
Chatham County (Georgia Medical Society Auxiliary)—Mrs. J. C. Metts, Savannah
Cherokee-Pickens Counties—Mrs. T. J. Vansant, Woodstock
Clarke-Oglethorpe-Oconee-Madison Counties — Mrs. H. W. Birdsong, Athens
Cobb County—Mrs. W. H. Perkinson, Marietta
Coffee County—Mrs. Roy L. Johnson, Douglas
Colquitt County—Mrs. W. R. McGinty, Moultrie
Bleckley-Dodge-Pulaski Counties—Mrs. I. J. Parkerson, Eastman
Elbert County—Mrs. D. V. Bailey, Elberton
Dooly County—Mrs. E. B. Davis, Byromville
Dougherty County—Mrs. A. S. Bacon, Albany
Emanuel County—Mrs. R. L. Sample, Summit
Fulton County—Mrs. Olin S. Cofer, Atlanta
Glynn County—Mrs. J. W. Simmons, Brunswick
Gwinnett County—Mrs. D. C. Kelly, Lawrenceville
Grady County—Mrs. J. B. Warnell, Cairo
Habersham County—Mrs. Cyrus Sharp, Alto
Hart County—Mrs. H. E. Teasley, Hartwell
Houston-Peach Counties—Mrs. R. L. Cater, Perry
Jackson County—Mrs. Ralph Freeman, Sr., Hoschton
Laurens County—Mrs. C. A. Hodges, Dublin
Lamar County—Mrs. J. H. Jackson, Barnesville
Macon County—Mrs. C. P. Savage, Montezuma
Muscogee County—Mrs. Francis Blackmar, Columbus
Polk County—Mrs. J. E. Griffith, Rockmart
Randolph-Stewart-Quitman Counties—Mrs. Loren Gary, Jr., Shellman
Richmond County—Mrs. Lucius N. Todd, Augusta
South Georgia Medical Society—Mrs. F. G. Eldridge, Valdosta
Spalding County—Mrs. T. J. Floyd, Griffin
Stephens County—Mrs. C. L. Ayers, Toccoa
Terrell County—Mrs. J. C. Tidmore, Dawson
Tift County—Mrs. E. L. Evans, Tifton
Toombs County—Mrs. J. E. Mercer, Vidalia
Troup County—Mrs. Kenneth Grace, LaGrange
Ware County—Mrs. Lovic W. Pierce, Waycross
Washington County—Mrs. J. B. Dillard, Davisboro

Conventions and Presidents

Honorary President for Life—Mrs. James N. Brawner, Atlanta
1924—Augusta—(Organization)—Mrs. C. W. Roberts, Temporary Chairman, Atlanta
1925—Atlanta—Mrs. James N. Brawner, Atlanta
1926—Albany—Mrs. William H. Myers, Savannah
1927—Athens—Mrs. C. W. Roberts, Atlanta
1928—Savannah—Mrs. Paul Holliday, Athens (Mrs. J. C. Moore, Gaffney, S. C.)
1929—Macon—Mrs. C. C. Hinton, Macon
1930—Augusta—Mrs. Marion T. Benson, Atlanta
1931—Atlanta—Mrs. C. C. Harrold, Macon
1932—Savannah—Mrs. Ralston Lattimore, Savannah
1933—Macon—Mrs. S. T. R. Revell, Louisville
1934—Augusta—Mrs. J. Bonar White, Atlanta
1935—Atlanta—Mrs. J. E. Penland, Waycross
1936—Savannah—Mrs. Ernest R. Harris, Winder
1937—Macon—Mrs. William R. Dancy, Savannah
1938—Augusta—Mrs. Ralph H. Chaney, Augusta
1939—Atlanta—Mrs. Warren A. Coleman, Eastman
1940—Savannah—Mrs. Eustace A. Allen, Atlanta

Committees

General Chairmen

Mrs. W. W. Chrisman, Macon
Mrs. Charles H. Richardson, Jr., Macon

Credentials and Registration

Mrs. Chas. J. Woods, Macon, Chairman
Mrs. J. D. Applewhite, Macon
Mrs. Walter Mobley, Macon
Mrs. F. N. Aldrich, Macon
Mrs. Rhea Richardson, Macon

Arrangements

Mrs. T. E. Rogers, Macon, Chairman
Mrs. T. L. Ross, Macon

Mrs. D. T. Henderson, Macon

Decorations

Mrs. Dillard Harber, Macon, Chairman
Mrs. D. T. Henderson, Macon
Mrs. Jas. Fountain, Macon
Mrs. W. C. Boswell, Macon
Mrs. W. A. Newman, Macon
Mrs. W. A. Williams, Macon
Mrs. Thomas Harrold, Macon
Mrs. Ford Ware, Macon
Mrs. Cullen Goolsby, Macon
Mrs. D. D. Walker, Macon
Mrs. John I. Hall, Macon
Mrs. Lewis Rawls, Macon
Mrs. George Y. Massenburg, Macon
Mrs. Jas. A. Wood, Macon

Open House

Mrs. Thomas Harrold, Macon, Chairman
Mrs. C. C. Hinton, Macon
Mrs. Allen Smith, Macon
Mrs. C. C. Harrold, Macon
Mrs. Willard R. Golsan, Macon
Mrs. W. W. Baxley, Macon
Mrs. H. G. Weaver, Macon

Luncheon

Mrs. J. L. King, Macon, Chairman
Mrs. Wallace Bazemore, Co-Chairman
Mrs. Walter Mobley, Macon
Mrs. Carl Anderson, Macon
Mrs. O. F. Keen, Macon
Mrs. Emory Clay, Macon

Tea

Mrs. Chas. N. Wasden, Macon, Chairman
Mrs. Hall Farmer, Macon
Mrs. W. W. Baxley, Macon
Mrs. Allen Smith, Macon
Mrs. Jas. A. Wood, Macon
Mrs. T. L. Ross, Macon

Banquet and Dance

Mrs. Ernest Corn, Macon, Chairman
Mrs. J. C. Anderson, Macon
Mrs. J. D. Applewhite, Macon
Mrs. D. T. Henderson, Macon
Mrs. D. D. Walker, Macon
Mrs. T. E. Rogers, Macon
Mrs. C. C. Hinton, Macon
Mrs. Ben Bashinski, Macon
Mrs. H. G. Weaver, Macon
Mrs. J. R. B. Branch, Macon

Hospitality

Mrs. J. P. Holmes, Macon, Chairman
Mrs. Chas. Harrold, Macon
Mrs. O. H. Weaver, Macon
Mrs. Ernest Corn, Macon
Mrs. Rhea Richardson, Macon
Mrs. Wallace Bazemore, Macon
Mrs. J. C. Anderson, Macon
Mrs. Chas. N. Wasden, Macon
Mrs. J. L. King, Macon
Mrs. Ben Bashinski, Macon
Mrs. Emory Clay, Macon
Mrs. Harold Atkinson, Macon
Mrs. T. E. Rogers, Macon
Mrs. C. C. Hinton, Macon

Transportation

Mrs. Harold Atkinson, Macon, Chairman
Mrs. O. R. Thompson, Macon
Mrs. A. R. Rozar, Macon
Mrs. A. M. Phillips, Macon
Mrs. R. G. Newton, Macon
Mrs. Leon D. Porch, Macon

Exhibits

Mrs. J. P. Holmes, Macon, State Chairman
Mrs. J. L. King, Macon, Local Chairman
Mrs. R. G. Newton, Macon

Timekeeper

Mrs. Chas. C. Harrold, Macon, Chairman
Mrs. Carl Anderson, Macon
Mrs. O. R. Thompson, Macon

Health Films

Mrs. G. L. Loden, Colbert, State Chairman
Mrs. Ralph Newton, Macon, Local Chairman
Mrs. Leon Porch, Macon

Bulletin

Mrs. J. D. Applewhite, Macon, Chairman
Mrs. Harold Atkinson, Macon
Mrs. O. R. Thompson, Macon
Mrs. Rhea Richardson, Macon

Pages

Mrs. Robert W. McAllister, Macon, Chairman
Mrs. Chas. K. McLaughlin, Macon
Mrs. M. Mass, Macon
Mrs. W. D. Jarratt, Macon
Mrs. Charles Cooper, Macon
Mrs. Paul Kemp, Macon

Publicity

Mrs. J. Harry Rogers, Atlanta, State Chairman
Mrs. J. C. Anderson, Macon, Chairman
Mrs. Ernest Corn, Macon
Mrs. Dillard Harber, Macon

PROGRAM

Headquarters: Hotel Dempsey

TUESDAY, MAY 13

REGISTRATION

Entertainment and Program

Executive Board Meeting

Tuesday, May 13, 7:45 P. M., Hotel Dempsey

Open House

Tuesday, May 13, 9:00 P. M., Hotel Dempsey Tavern. All members of State Medical Association and their wives are invited

Luncheon

Wednesday, May 14, 1:15 P. M., Baconsfield Club House

Tea

Wednesday, May 14, 5:00 to 6:30 P. M., Home of Dr. and Mrs. Jas. A. Wood, 214 Vineville Avenue. Given by the Woman's Auxiliary to the Bibb County Medical Society. All members of the State Medical Association and their wives are invited.

Public Meeting

Wednesday, May 14, 8:00 P. M., Medical Association of Georgia, Municipal Auditorium

Tour of Ocmulgee National Park
Thursday, May 15, 3:15 P. M.
Joint Banquet and Dance
Thursday, May 15, 7:30 P. M., Idle Hour Club

PROGRAM

Wednesday, May 14, 1941, 9:30 A. M.
Hotel Dempsey

Call to Order by the President, Mrs. H. G. Banister, Ila
Invocation
Dr. Samuel T. Senter, Macon, Pastor, Vineville Methodist Church.
Address of Welcome
Mrs. J. P. Holmes, Macon, President of the Woman's Auxiliary to the Bibb County Medical Society
Response to the Address of Welcome
Mrs. Murdock Equen, Atlanta
Introduction of Officers and Honor Guest
Mrs. C. C. Harrold, Macon

ADDRESS
The Role of the Auxiliary
Dr. J. C. Patterson, Cuthbert, President, Medical Association of Georgia

ADDRESS
Observations on Organization
Mrs. Eustace A. Allen, Atlanta, Third Vice President, Woman's Auxiliary to the American Medical Association
Report of Entertainment Committee
Mrs. W. W. Chrisman, Macon
Rules Governing Convention Procedure
Mrs. J. E. Penland, Waycross, Parliamentarian
Report of District Managers and County Presidents
Report of Executive Committee by Secretary
Report of Credentials Committee, Mrs. Chas. J. Woods, Macon, Chairman
Appointment of Special Committees
Reading of Minutes
Business
Adjournment

PROGRAM

Thursday, May 15, 9:30 A. M.
Hotel Dempsey

Call to Order by the President, Mrs. H. G. Banister, Ila
Invocation
Dr. Albert G. Harris, Macon, Pastor, First Presbyterian Church
Address of Welcome
Mrs. W. W. Chrisman, Macon, Vice-President of the Woman's Auxiliary to the Bihh County Medical Society
Response to the Address of Welcome
Mrs. Leo Smith, Waycross
Report of Advisory Committee to the Woman's Auxiliary
Dr. James N. Brawner, Atlanta, Chairman

ADDRESS
The Education and Renumeration of the Physician
Dr. Allen H. Bunce, Atlanta, President-Elect, Medical Association of Georgia

ADDRESS
Modern Trends in the Woman's Club Movement
Mrs. R. E. Mosiman, Seattle, Washington, President-Elect, Woman's Auxiliary to the American Medical Association
Memorial Service
Mrs. A. J. Mooney, Statesboro
Report of President
Report of Officers
Report of Auditors
Report of Meeting of Auxiliary to the American Medical Association, Mrs. Olin S. Cofer, Atlanta
Report of Meeting of Auxiliary to the Southern Medical Association, Mrs. W. G. Elliott, Cuthbert
Report of Chairman of Standing Committees
Report of Resolutions Committee, Chairman
Report of Awards Committees
Report of Credentials Committee, Chairman
Report of Courtesy Committee
Report of Nominating Committee
Election of Officers
Reading of Minutes
Business
Installation of Officers
Presentation of Past President's Pin to Retiring President by Mrs. Joseph Yampolsky, Atlanta
Announcements by President
Mrs. Lee Howard, Savannah
Adjournment
The Mrs. James N. Brawner Trophy and Mrs. J. Bonar White Exhibit and Scrapbook Awards will be awarded at the Annual Banquet of the Medical Association and the Auxiliary, Thursday evening, May 15, 1941

Thursday, May 15, 2:30 P. M.
Post Convention Board Meeting
Mrs. Lee Howard, Savannah, President
Rules to Govern the Convention

1. To gain recognition, a delegate is requested to rise, address the chair, give her name and Auxiliary.
2. No delegate shall speak more than twice on the same subject, and is limited to two minutes each time.
3. Reports shall not be read from Auxiliaries which are not represented by delegates but shall be filed with the Secretary.
4. All original motions or resolutions shall be made by submitting two copies, one to the Resolutions Committee and one to the Recording Secretary.
5. Reports of delegates and district managers are limited to two minutes.
6. No one is entitled to vote before she is registered. Whispering conversations greatly retard the business of a meeting.

Please Be Prompt. Meetings will begin promptly at the time stated in the program.

The American Medical Association will hold its ninety-second annual session in Cleveland, Ohio, June 2-6, 1941.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE PRACTICE OF MEDICINE IN THE OTHER FELLOW'S YARD

It just occurs to us that our general practitioners would be interested in seeing how health work in a county is sometimes initiated. It may be interesting also to see to what extent lay people are interested in health and in developing a program to protect themselves and their community. Health programs originate under divers circumstances. The one that we chose as an example is a program initiated in Bulloch County, Georgia.

The program of Bulloch County may be said to be representative of a school initiated program leading to community organization for health education. The work in Bulloch County was a natural outgrowth of two years of work in five South Georgia Counties. An educational grant provided for funds for two years to determine the needs of teachers in these areas and to provide help in meeting their problems.

The first year study brought to light the need of help in teaching children to read. Health and economic problems were so apparent, however, that in the second year these were included along with the reading program. In the light of the findings of the two previous years' studies, Bulloch County was chosen as a testing field.

Bulloch County is an agricultural five-crop county, of some 669 square miles. It has a population of 26,500, of whom about one-third are colored.

The underlying philosophy of the program is aimed to improve rural life. The program did not proceed in an orderly predetermined fashion but like Topsy grew and sprouted in all directions according to the needs found.

Miss Jane Franseth, who had conducted the two previous years' study, was appointed to supervise the program in Bulloch County. The county was divided into three regions. In each region the teachers elected an executive committee which comprised all the principals in this area and the chairmen of subordinate committees from the primary upper grades and high schools respectively. This committee met with Miss Franseth once each month. At this time policies for the improvement of the curriculum within their region was discussed. Following these meetings, the subordinate committees held meetings with teachers in their areas on Saturdays. At these meetings the policies discussed at the monthly meetings were brought up and acted upon.

Miss Franseth spent one week each month in each region, where she worked with the teachers, pupils, and parents assisting them in carrying out the program of the executive committee of that region. The fourth week of each month was spent in coordinating the work of the schools with other agencies and making pertinent community contacts necessary in advancing the program. The initial series of these committee meetings resulted in establishing the following seven problems which concerned children and adults of the County in their everyday life. It was pointed out that success in finding a solution to these problems depended to a certain degree upon the aid which they received at school in learning to recognize, analyze, and solve these problems. Their "Seven Problems" were found to be as follows:

1. Maintaining mental, emotional, and physical health.
2. Receiving and transmitting ideas adequately.
3. Making the best use of natural resources.
4. Performing the responsibilities of citizenship in the best way possible.
5. Expressing aesthetic and spiritual impulses in the most satisfactory manner.
6. Earning an adequate living.
7. Utilizing education.

We are concerned chiefly with the activities developed to accomplish objective No. 1—Maintaining mental, emotional, and physical health. It is apparent that the Bulloch County program embodies a broader viewpoint than health education alone, but even the other phases of community life mentioned are related to health either directly or indirectly.

With these objectives in mind the first task of the Executive Committee was to determine the health problems of their areas. This could not be done without help from the surrounding community and, in securing this aid, the community became an inseparable part of the program. While there was at the time no health department in Bulloch County, there was some community interest in health. A county nurse had been employed for many years except during the depression. There was a county hospital, built largely through the efforts of private physicians. There was interest—but a rather desultory one — in the prevention of smallpox, typhoid, and diphtheria.

Up until this time, however, their interest was latent and burdened with inertia. With the creation of the Bulloch County program new interest was aroused. The local teacher committees stimulated interest in the health of the community and a number of surveys were initiated.

A group of local dentists were interested and volunteered their services for the examination of teeth of school children. Private physicians were approached, and voluntarily made physical examinations of school children, demonstrating the extent in Bulloch County of such common defects as malnutrition, tonsils and adenoids. Teachers used the Snellen Chart to discover many cases of defective vision. A need was felt to bring the State Health Department into the program. The Division of Malaria and Hookworm Control sent technician specialists into the County and discovered that 60 per cent of the school population suffered from hookworm.

Hookworm was a serious health problem. What could the school do to meet it effectively? Each member of the committee had this as a task confronting her—how can I help my children solve the hookworm problem in their home life and the life of the community as a whole? It became apparent at once that in many incidences the teacher knew hardly more than the pupil relative to the health problems discovered. To meet this need representatives from the State Health Department met with these committees of teachers and discussed all angles of the hookworm problem. They also supplied literature and films which the teachers were to use later in the program.

Following this preliminary teacher training the teacher took the problem into the class room and studied the hookworm. The pupils in turn took the information required back into their homes and told their parents about the findings.

This was the approach to the next step for a plan for getting rid of hookworm in the county. This plan had two phases; first, treatment for infected children and adults, and secondly, preventing further soil pollution.

The first part of the plan called for cooperation by the schools, State Health Department, local physicians, the parents of school children, and other adults. A plan was worked out whereby treatments were given at schools by local physicians, with materials supplied by the State Health Department. This work was begun in the fall of 1936, with 60 per cent infestation in school children. In the spring of 1940, the incidence of hookworm among school children had been reduced to 27.7 per cent.

In the second part of the program, pupils and teachers studied the means of preventing soil pollution, and came to the conclusion that, for their purposes, the sanitary pit privy was the method most applicable. Each pupil then brought in a report of the presence or absence of such a facility in his home, its condition, if present, and its location. In this way, a map of the sanitary conditions of the county was developed.

At this stage, the aid of the Parent-Teacher Association was sought. The schools sponsored a W. P. A. project for the construction of pit privies, and used the Parent-Teacher Associations to educate their patrons in the part they should play. As the project was planned and still operates, the patrons provide the lumber, the health department provides the plans, and selects the sites, the W. P. A. provides the labor, and the schools provide transportation for the W. P. A. workers. From the fall of 1936 to the spring of 1940, three hundred such privies have been built in Bulloch County.

In 1936 and 1937, when these activities were inaugurated, there was no county health department. The above problems and others discovered during the course of the program made it apparent to the leaders that local health assistance was necessary. The schools could find the problems and assist in planning to solve them, but they could not do all that is necessary for the maintenance of public health. Accordingly, the regional committees, with the cooperation of the Parent-Teacher Association began to educate the people to the need for a local county health department. Whereas, for years previous the need for a health department was apparent the county had been unable to pass the measure through two successive grand juries. With the operation of the program, however, the need for this service was so apparent that at the spring and fall terms of the county court the two necessary grand jury votes were cast.

In its organization and finances, the Health Department is closely tied to schools and local government. The chairman of the county commissioners is, at the same time, a member of the board of education and the board of health. This fortunate arrangement facilitates cooperative efforts between the schools and health department.

With the aid of the newly created health department, measures for health control in the schools were instituted. Physical examinations of school children, previously of haphazard occurrence, are being conducted. More children are being placed under the care of private physicians. This results both from the contact of the child with the school doctor and the nurse and from the greater consciousness of personal health problems on the part of teachers.

Another angle of the health activities of the school, which is noteworthy, is the change that has taken place in the school lunches. In 1936, not a school of the thirteen consolidated white schools of the county provided an opportunity for a hot lunch at noon time. Hot lunches were planned at school. During the first year, 1936, a few rooms served such lunches prepared from food brought to school by the children.

As a result of the findings of local dentists, pupils and teachers began a study of conditions affecting the teeth. While diet alone cannot solve

that problem, it was believed to be of sufficient importance to receive attention. Accordingly, plans were made for dietary improvement at home and at school.

The schools again sought community aid in improving home dietaries. The county agent, the home demonstration agent, the leaders of 4-H Clubs, and Future Farmers of America, met with the supervisor, county superintendent, and zone committees, and planned a campaign for better home gardens, more and better canning, and "year around gardens" instead of just "spring gardens." In two of the schools, there is comparatively large scale canning equipment used in teaching vocational classes. Canning parties are held at these schools during the summer. Patrons bring their produce, use the school equipment, and pay for the cans which are bought by the county agent at wholesale prices.

The effect of these activities upon the diet and habits of living of the people may not be immediately measureable, but it will be reflected eventually in better health, — physical, mental, and emotional.

Another feature of the lunch and food program of Bulloch County, which is unique, is the provision of refrigerators and ice in all the schools. Local ice companies furnish ice and refrigerators during the school year for cooling the milk which children bring for their school lunches.

Thus, through a program which started in the schools in 1937, as a plan to improve rural education, there has grown up a community organization, not only for health, with which we are primarily concerned, but for general community betterment. This organization functions daily in the lives of the people.

Let us summarize the accomplishments of this program briefly. The following list is from a report submitted June, 1940.

1. Hookworm reduced from 60 per cent to less than 27.7 per cent.
2. Ninety-four per cent of the children immunized against typhoid fever.
3. Ninety per cent of the children vaccinated against smallpox.
4. Ninety per cent of the children under six immunized against diphtheria.

GUY G. LUNSFORD, M.D., Director
Division of Local Health Organizations.

HIS FIRST CEREAL FEEDING

The baby's first solid food always excites the parent's interest. Will he cry? Will he spit it up? Will he try to swallow the spoon? Far more important than the child's "cute" reactions is the fact that figuratively and physiologically, the little fellow is just beginning to eat like a man.

It is a fortunate provision of Nature that at the time the infant is ready to receive the nutritional benefits of cereal, his taste is unspoiled by sweets, pastry, condiments, tobacco, alcohol and other things to which adult palates and constitutions have become conditioned.

Many a parent, with limited knowledge of nutrition, attempts to do the baby's tasting for him. Partial to sweets, the mother sweetens her child's cereal. Disliking cod liver oil, she wrinkles her nose and sighs; "Poor child, to have to take such awful stuff!" The child is quick to learn by example, and soon may become poor indeed—in nutrition, as well as in mental habits and psychological adjustment.

Appreciating the importance and difficulties of the physician's problem in establishing and maintaining good eating habits, Mead Johnson & Company continue to supply Pablum in its natural form. No sugar is added. There is no corresponding dilution of the present protein, mineral and vitamin content of Pablum. Is this not worth while?

MEMBERS—BIBB COUNTY MEDICAL SOCIETY 1940-1941

Aldrich, F. N.
Anderson, Carl L.
Anderson, J. C.
Applewhite, J. D.
Atkinson, H. C.
Barton, William
Bashinski, Benjamin
Baxley, W. W.
Bazemore, W. L.
Boswell, W. C.
Branch, J. R. B.
Brown, J. F.
Camp, J. A.
Chrisman, W. W.
Clay, J. E.
Cooper, Charles F.
Corn, Ernest
Daniel, Orman
Dove, W. B.
Dupree, G. W.
Farmer, C. Hall
Fountain, J. A.
Gallemore, J. L.
Golsan, W. R.
Goolsby, R. C.
Gostin, B. S.
Hall, John I.
Hall, Thomas H.
Hanson, J. Fletcher
Harrold, C. C.
Harrold, Thomas
Hatcher, Milford
Hembree, J. A.
Holmes, J. P.
Hurley, T. A.
Jarratt, W. D.
Johnson, Walter
Johnson, J. E. L.
Kay, J. B.
Keen, O. F.
Kemp, Paul S.
King, J. L.
Martin, J. W.
Mass, Max
Massenburg, G. Y.
McAfee, L. C.
McAllister, R. W.
McLaughlin, C. K.
McMichael, V. H.
Merriwether, W. W.
Miller, G. T.
Newman, W. A.
Newton, R. G.
Patton, Sam E.
Pennington, C. L.
Phillips, A. M.
Porch, Leon D.
Prescott, E. H.
Rawls, L. L.
Richardson, C. H.
Richardson, Rhea W.
Ridley, C. L.
Rogers, T. E.
Ross, J. T.
Ross, Thomas L.
Rozar, A. R.
Rubin, S. N.
Siegel, Alvin E.
Smith, H. D.
Smith, Jr., J. A.
Suarez, Jr., Raymond
Swilling, Evelyn
Thompson, O. R.
Vinson, Frank
Walker, D. D.
Ware, Ford
Wasden, C. N.
Watson, O. O.
Weaver, H. G.
Weaver, O. H.
Williams, W. A.
Wood, James A.
Zachary, J. D.

Corrected to April 1, 1941.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

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NURSING EDUCATION IN GEORGIA

Carrie M. Spurgeon, R.N.*
Atlanta

Nursing education in Georgia has progressed slowly but steadily since 1907 when the Board of Examiners of Nurses for Georgia was organized. The nursing law enacted that year required a "systematic course of instruction," and gave the Board the duty of outlining a course designed to prepare students for nursing. State Board Examinations were required by law in order that qualified nurses might be certified as such, and that protection of the public be assured. Although there have been necessary changes in the law from time to time, the essential values have been retained. Selective admissions to schools, approved programs of instruction and licensure, safeguard the profession and the people at large. The preparation of the Georgia nurse today compares favorably with that of nurses of other states, and the public is served by an increasingly better qualified individual.

Instruction in the schools of nursing is concerned with both classroom and ward teaching, and the student's twenty-four hour day is planned with the view of good balance, and the aim of producing a skilled nurse, a social minded and thoroughly adjustable individual.

Since the Georgia schools are all hospital schools, the administration of the hospital is responsible for both the efficient operation of the hospital and the education of the nursing student. The nursing service rendered by the student is useful to the hospital and at the same time meaningful to the student. It must be so, in order that the hospital operate effectively, and in order that the student derive the highest educational value from assigned clinical experience. A sound and smoothly operating organization is essential for both groups.

One means of stabilizing the nursing service is by the use of graduate staff nurses. In some instances the night service is covered by graduates during class months; and often the day and evening hours are regulated with one or two on each division. The tendency toward a wider use of the graduate staff nurse is increasing, and its value to both the hospital and school of nursing is inestimable.

A study of special reports submitted by thirteen Georgia schools of nursing the latter part of 1939 and early 1940 determined pertinent facts relative to nursing hours per patient, hours of nursing service, and class hours. The average *nursing time per patient* per day in all thirteen hospitals was found to be four hours thirty-seven minutes, with a range of two hours fifty-three minutes to eight hours eleven minutes in the individual hospitals. The average nursing hours per patient (four hours thirty-seven minutes) is adequate as judged by the minimum standard of 3.2 for general services which was set by the Joint Committee of the American Hospital Association and the National League of Nursing Education for the Study of Nursing Service and Nursing Education.

The daily average *duty time per student nurse* for all hospitals based on actual count of days worked, was six hours thirty-three minutes, with a range of four hours fifty-seven minutes to seven hours thirty-one minutes. In arriving at this figure, all activities such as ward conference, meal, and class hours were deducted, and actual time spent in hospital service was estimated. The daily average duty time per student (six hours thirty-three minutes) may be considered high when accepting the fact that many of the hospital schools still operate on a seven-day week and when judged on a basis of the minimum forty-eight hour week to include nursing experience plus class hours as recommended by the Curriculum Committee of the National League of Nursing Education.

The daily average *class time per student* based on a count of seven days for each student was fifty-one minutes per student for all schools of nursing, with a range of fifteen minutes per day to one hour thirty-nine minutes per day. The daily average class hours per student (fifty-one minutes) is higher than would be expected with a minimum requirement of eight hundred ten class hours, and considering the fact that very few classes are given in the senior year. The average amounts to about one class per day and would hardly be considered a high average for a school giving any type of instruction. The average working day of the student nurse then, including class hours and hours of hospital duty,

*Educational Supervisor, Board of Examiners of Nurses for Georgia.

is shown as seven hours twenty-four minutes. This average represents a seven day week and it is significant that individual reports showed in some instances a twelve hour working day.

A better understanding of the cost and operation of nursing service and nursing education as a cooperative venture is necessary. Three essentials are outlined as follows:

1. A system of cost accounting to determine the actual cost of nursing service, nursing education, and student value in service.
2. A separate stable fund and budgetary system for nursing service and nursing education.
3. A committee which functions as a governing body for the school of nursing in the direction of school policies and selection of faculty and school personnel.

Both hospitals and schools are showing continued growth in a better understanding of the fundamentals of their cooperative jobs. As problems of National Defense present themselves, an increasingly enlightened personnel meet them with courage and assurance. The schools of nursing which have facilities for teaching and housing of additional students are increasing enrollments. Over three hundred nurses are being graduated annually, and an increased number is anticipated for next year.

NEWS ITEMS

THE GEORGIA MEDICAL SOCIETY, Savannah, met on March 11. Dr. Howard J. Morrison read a paper entitled "Neonatal Asphyxia," discussed by Dr. H. F. Sharpley, Jr., and Dr. E. C. Demmond; Dr. Jacob Rubin reported a case, "Congenital Heart Disease in An Adult."

A VISITING STAFF meeting of Grady Hospital, Atlanta, was held on March 11. Dr. H. S. Weens presented a report of case and showed "Serial Pictures of Autopsy"; discussed by Dr. Fred Rudder.

DR. M. A. EHRLICH, Bainbridge, has been invited by the Southern Medical Association to speak on "Allergy" at its next annual meeting to be held in St. Louis in November.

DR. JOHN D. BLACKBURN, Thomaston, has been appointed a member of the Medical Examining Board of Upson county to serve with Dr. R. L. Carter, Thomaston, to examine those drafted for Army training.

DR. GEORGE C. BROOKE, Canton, has been taking postgraduate work in pediatrics in New Orleans.

DR. H. C. SCHENCK, Atlanta, State Department of Public Health, was a guest speaker at the annual meeting of the Chatham-Savannah Tuberculosis Association in Savannah on March 12.

THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL, New York City, announces that Dr. Walter C. Alvarez of the Mayo Clinic, Rochester, Minn., will deliver a lecture on Friday, April 18, 2:30 P. M., on "Puzzling Types of Abdominal Pain"; Dr. Ralph Moore Tovell, Hartford Hospital, Hartford, Conn., will deliver a lecture on Friday, May 2, 5:30 P. M., on "Regional Anesthesia."

THE NINTH DISTRICT MEDICAL SOCIETY met at Gainesville, March 19. Titles of addresses and papers were: "Invocation" by Rev. Hoke Sewell; "Address of Welcome," Dr. W. R. Garner, Gainesville; "Response to Address of Welcome," Dr. E. R. Harris, Winder; "Reading of Minutes," Dr. Pratt Cheek, Gainesville, secretary; "Address," Dr. Allen H. Bunce, Atlanta, president-elect of the Medical Association of Georgia; "Address," Dr. J. C. Patterson, Cuthbert, president of the Association; "Non-Suppurative Diseases of the Middle Ear," Dr. E. L. Ward, Gainesville, discussed by Dr. Calhoun McDougall and Dr. C. G. Butler, both of Gainesville; "Gonadogen—Shown with Sound Motion Picture in Technicolor," Dr. S. L. Seigler, Brooklyn, N. Y. Luncheon was served at the Dixie Hunt Hotel.

THE FULTON COUNTY MEDICAL SOCIETY met on March 20. Dr. Jeff L. Richardson, Atlanta, reported two cases, "Tachycardia Showing Identical Clinic Pictures." One was the simple paroxysmal type, the other was the ventricular type following coronary occlusion and terminated fatally. Mr. T. K. Glenn, chairman, Board of Trustees of Grady Hospital, Atlanta, spoke on the "Proposed Hospital Authority for Atlanta, Fulton and DeKalb Counties"; Dr. Allen H. Bunce, Atlanta, gave the "Second Reading of the Proposed Constitution and By-Laws." The program for the April 7 meeting included the following titles of papers: "Vitamin K" by Dr. William Riser, Jr., discussed by Dr. J. Gaston Gay, Atlanta; "Symposium-Bronchiectasis," Dr. Warren Matthews, Dr. Taylor Burgess, Dr. Carl C. Aven and Dr. Robert Major, all of Atlanta.

MEETING of the staff of the Crawford W. Long Memorial Hospital, Atlanta, was held on March 13. Dr. D. Henry Poer reported a case of "Perforated Peptic Ulcer"; discussed by Dr. Francis P. Parker.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on March 25. Dr. J. K. Quattlebaum read a paper entitled, "Carcinoma of the Colon—Illustrated with Motion Pictures"; discussed by Dr. Jabez Jones and Dr. W. D. Wilson.

DR. T. H. JOHNSTON, formerly of Douglas, has located at Eatonton where he will practice in the future. Dr. Johnston served many years as the efficient secretary-treasurer of the Coffee County Medical Society.

DR. TRAMMELL STARR, Dalton, spoke recently before a meeting of the Valley Point students and faculty on "Appendicitis and Its Treatment."

DR. O. S. GROSS, Vidalia, has been appointed a member of the local board of Medical Examiners for Military Training.

DR. C. R. BARKSDALE, Blakely, has been appointed a member of the Early County Board of Medical Examiners for Military Training.

THE JACKSON-BARROW COUNTIES MEDICAL SOCIETY met at the Harrison Hotel, Jefferson, March 3. Members present were: Dr. S. T. Ross, Winder; Dr. G. O. Castellaw, Commerce; Dr. Paul Scoggins, Commerce; Dr. J. H. Campbell, Commerce; Dr. C. B. Lord, Jefferson, Councilor of the Association; Dr. W. L. Mathews, Winder; Dr. L. R. Bryson, Pendergrass; Dr. L. C. Allen, Hoschton; Dr. A. A. Rogers, Commerce. Invited

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guests and speakers were: Dr. L. M. Petrie and Dr. E. R. Watson, State Department of Public Health.

THE MONTHLY STAFF MEETING of Emory University Hospital, Emory University, was held on April 2. Mr. Charles Brown, Department of Anatomy, reported a case of "Complete Absence of Posterior Arch of Atlas"; Dr. Dan Elkin, Department of Surgery, reported a case of "Subclavian Aneurysm"; Dr. Vernon Powell reported "A Case of Haemophilus Influenzae Bacteremia with Endocarditis."

DR. JAMES R. MCCORD, Atlanta, is a member of the Board of Directors of the American Committee on Maternal Welfare, Inc., 650 Rush Street, Chicago. The second meeting of the American Congress on Obstetrics and Gynecology will be held in St. Louis, Missouri, April 6-10, 1942.

THE SEVENTH DISTRICT MEDICAL SOCIETY met at Calhoun on April 2. Copy of program follows: "Invocation" by Rev. W. H. Gardner; "Welcome Address," Mayor W. F. Bond and Dr. M. A. Acree, both of Calhoun. Titles of papers on the scientific program were: "Internal Fixation of Fractures of the Neck of the Femur—Moving Pictures and Slides," Dr. E. Dunbar Newell, Chattanooga, Tenn.; discussed by Dr. J. H. Mull, Rome. "Present Day Treatment of Pneumonia," Dr. H. C. Sauls, Atlanta; discussed by Dr. William Harbin, Rome, and Dr. W. H. Perkinson, Marietta. "Medical Preparedness," Dr. Edger H. Greene, Atlanta. "The Present Status of Vitamin K," Dr. Harold J. Starr, Chattanooga, Tenn.; discussed by Dr. Robert F. Norton, Rome, and Dr. Trammell Starr, Dalton. "Psychosomatic Diseases," Dr. Newdigate M. Owensby, Atlanta; discussed by Dr. Z. V. Johnston, Calhoun.

NUTRITIONAL DEFICIENCIES

The diagnosis and treatment of nutritional deficiencies not only within the province of the physician, but it rapidly grows more apparent that it is possible for the lay public to do harm by the indiscriminate, self-administration of vitamin concentrates.

Therefore, under the brand name of "SMACO," the Biochemical Division of the S.M.A. Corporation offers the medical profession a selection of nutritional biochemical products in dosage forms designed for use by physicians only.

Attention is drawn to the fact that no coined names are used and that each product is designated by its technical name and not by a common letter. Potencies, whenever possible, are given only in terms of weight. The use of the term "units" on the package labels is carefully avoided except as required. To avoid confusion no attempt has been made to "match units" or to show a superiority of numbers or multiple combinations of letters. Each package bears the statement, "Caution—To be used only by or on the prescription of a physician" and no dosage is given, that being left entirely to the discretion of the physician.

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NEW SQUIBB CAPSULE CONTAINS FIVE SYNTHETIC B COMPLEX FACTORS

A miniature capsule containing five synthetic factors of the vitamin B complex is now being supplied by E. R. Squibb & Sons, New York, in Syntheplex-B Capsules. Each capsule contains:

1 mg. (333 U.S.P. XI [Int] units) thiamine hydrochloride (vitamin B_1)
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Chief indication for the new product is in the treatment of vitamin B complex deficiency where it is desirable to increase the intake of these five factors beyond the practicable limits of dosage with natural B complex sources. Physicians wishing to experiment with pyridoxine and pantothenic acid in combination with the other synthetic B complex factors will also find it useful, as will persons who cannot tolerate yeast, or who cannot take large capsules. It is emphasized, however, that Syntheplex-B Capsules are not a substitute for a product containing the entire natural vitamin B complex.

Recommended dosage for adults is two or more capsules daily; for infants and children, one or more daily.

PHYSICIAN WANTED

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DESIRABLE AND UNDESIRABLE RESULTS OF THYROID SURGERY

D. HENRY POER, M.D.
Atlanta

The successful results of thyroid surgery as practiced today are the result principally of three important developments which have taken place during the past twenty years. These are, (1) the careful preparation of the patient before operation, including the proper use of iodine; (2) the perfection of less harmful and more satisfactory methods of anesthesia, and (3) the use of multiple stage operations. Each of these procedures has contributed much toward lowering the operative mortality rate from 25 per cent and more to an average now of 1 to 2 per cent; but as much as the purely surgical handling of thyroid patients has been perfected, other features of management of thyroid conditions have not improved correspondingly. The diagnosis of obscure and indefinite thyroid conditions remains difficult, and striking mistakes are not infrequently made even by seasoned examiners; likewise the differentiation from disorders that present many similar symptoms, and the relation of a coexistent goiter to symptoms due to other causes are sources of serious errors. The percentage of recurrences following operation has not been materially reduced during the past ten years, which is not altogether due to adherence to the multiple stage plan for operation. For these reasons I consider it timely that surgeon and practitioner join hands in a serious attempt to correct or improve these unsatisfactory conditions rather than continue adding to the already abundant statistical material concerning thyroid diseases. It is, therefore, the purpose of this paper to present some of the problems that have been met in the Thyroid Clinic at Grady Hospital, Atlanta, and to cite case reports illustrating some of the difficulties involved. Several of these represent mistakes and errors and are presented in order that they will not be repeated in the experience of others.

A desirable result in the treatment of any surgical condition, including those of the thyroid, requires a correct diagnosis, a correct plan of treatment, a safe operation without complications, and complete relief of symptoms within a reasonable time. Such results cannot be obtained in thyroid conditions as readily as in other conditions such as acute appendicitis because symptoms appear slowly and insiduously and disappear in the same manner without consideration of time. The thyroid surgeon must be prepared to use intelligent deliberation both before and after operation and insist that such patients return for observation for many months or even years.

DIAGNOSIS

A. *Indefinite Thyrotoxicosis*

Laboratory procedures developed to aid with the diagnosis of increased activity of the thyroid include the basal metabolic rate, blood iodine and cholesterol studies, reaction to adrenalin and galvanic current, studies of the pulse rate in relation to the pulse pressure, and the galactose tolerance test. With such a formidable list it might be assumed that the diagnosis of hyperthyroidism can be established with a fair degree of accuracy, but paradoxically, the numerous tests used are evidence of the inaccuracy of all of them. The typical case of Graves' disease or toxic adenoma requires only a study of the basal metabolism to confirm the clinical impression, but the

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Fig. 1. Non-thyroid exophthalmos.

Fig. 2. Goiter not cause of symptoms.

borderline conditions are still a difficult problem. The following case reports illustrate typical problems that have been encountered:

Report of Cases

(a) Mrs. A. H. T., aged 34, developed nervousness, tremor, increased sweating, tachycardia and loss of weight. B.M.R. plus 28 per cent. Had afternoon fever and leukocytosis. Iodine caused some benefit. One degree enlargement of thyroid. After many months of medical treatment (all blood cultures negative) and no improvement, a subtotal thyroidectomy was done in two stages. Some improvement has resulted but not striking. Fever and leukocytosis continue at intervals.

Comment: Operation was done in this case with hesitation because of confusing picture and it is still thought that a diagnosis of subacute bacterial endocarditis may eventually become established.

(b) Miss C. S., aged 25, school teacher, developed trachycardia, nervousness, fatigue, and loss of weight; there were no eye signs, no increased sweating or intolerance to heat, and B.M.R. was only plus 19 per cent. Enlargement of thyroid definite but slight. Pulse 108. Blood pressure 105/76. Negative response to iodine. X-ray therapy also without definite benefit. Medical measures carried out for 18 months with no consistent improvement. Subtotal thyroidectomy finally done as last resort followed by slow but progressive improvement. Pulse 90 and weight increased 8 pounds since operation.

Comment: This represents a most difficult diagnostic problem and required many months of study before surgery was finally advised. It would seem that the diagnosis of hyperthyroidism was correct even though improvement has been unusually slow.

(c) Mrs. G. P., aged 26, (Fig. 1), noted increase in size of eyes, marked nervousness, palpitation, and increase in appetite. B.M.R. plus 6 per cent. Pulse rate 80 when not excited. Exophthalmos strongly suggested hyperthyroidism but no findings confirmed this diagnosis. Patient lived under severe nervous strain due to bad economic situation which required her to do all housework and take care of extremely vigorous and somewhat spoiled daughter of four. Treated with bed rest, sedatives and x-ray over pituitary areas to control eye symptoms with considerable relief.

Comment: Strongly suggestive symptoms of hyperthyroidism including exophthalmos found to be due to other causes.

B. *Evaluation of Symptoms in Presence of Goiter*

No problem of diagnosis is involved when a patient with an obvious goiter seeks medical attention but the relation of such a goiter in the quiescent stage to symptoms suggestive of toxicity but actually due to other causes is the source of a very common error of judgment. Probably the reason for this is the fact that many symptoms such

as nervousness, tachycardia, palpitation, increased sweating, choking, and fatigue may have a purely functional basis rather than a definite organic etiology. Thyroid surgeons who quickly assume that such symptoms are always due to coexistent goiter and advise removal on that basis are sure to have such patients return later complaining that the same symptoms are still present and may have become worse. To remove such a goiter when it is not the cause of the patient's symptoms is only justified when such facts are explained to the patient before operation. This situation is illustrated by the following case reports:

(a) Mrs. C. A. W., aged 45, with nodular goiter for many years became very nervous, lost weight, and had "spells." B.M.R. plus 30 per cent. Thyroidectomy had no effect upon symptoms. Large amounts of estrogenic hormone relieved nervousness and "spells."

Comment: Removal of a nodular non-toxic goiter in a patient with a psychosis incident to the menopause produced no demonstrable improvement.

(b) Mrs. J. W. E., aged 50, had small goiter for years, suffered nervous breakdown, lost 40 pounds in weight. Daughter had goiter operation 10 years ago and decided that mother needed same treatment. Pulse 100. Blood pressure 178/94. B.M.R. plus 19 per cent. Thyroidectomy followed by improvement for 3 months; symptoms then returned and have become worse. Patient is now a partial invalid.

Comment: Hypertension in strongly neurotic individual. Goiter not related.

(c) Mrs. R. T. P., aged 27, (Fig. 2), had small adenomatous goiter for 10 years. Became nervous, apprehensive, afraid of crowds, and lost weight. B.M.R. plus 32 per cent and pulse rate 118.

Comment: Soon after thyroidectomy, definite symptoms of dementia praecox appeared and patient was sent to mental institution.

C. *Symptoms Suggestive of but Not Due to Thyrotoxicosis*

The patient with definite evidence of thyrotoxicosis even without the usual enlargement of the thyroid or exophthalmos presents no problem to the thyroid surgeon but many times the picture is not clear or conclusive. One must remember the many other conditions that cause nervousness, tachycardia, increased B.M.R., loss of weight, fatigue, tremor, increased sweating, and exophthalmos in addition to Graves' disease. A thyroid operation performed upon patients suffering with any of these related conditions produces no benefit and often they have actually been made worse.

Such a result is illustrated by the following case reports:

(a) C. S., aged 18, developed severe attacks of paroxysmal tachycardia, nervousness and loss of weight at age 16. B.M.R. plus 36 per cent. Had subtotal thyroidectomy done at that time with temporary relief of symptoms. All these have returned now and recurrence of thyroid trouble suspected by family physician. When examined he presented no definite evidence of hyperthyroidism. Study of family background revealed identically same condition in father at same age. Patient was quiet, reticent, and stayed at home with flower garden and chickens. Had never driven an automobile, danced, had dates or taken any part in athletics.

Comment: Thyroidectomy in this case had no effect upon condition. (Neuro-circulatory asthenia).

(b) W. F., aged 25, became nervous, lost weight, noticed tremor and increased sweating. Palpitation occurred with slight exertion and severe choking sensation caused him to suspect thyroid (sister had goiter operation). Pulse 110. Blood pressure 120/78. B.M.R. plus 18 per cent. Subtotal thyroidectomy done elsewhere was followed by short period of relief and all symptoms then became worse. A good job plus marriage produced a more satisfactory result.

Comment: Functional neurosis with emotional instability not influenced by thyroid operation.

No operation was performed in the following similar cases.

(c) Mrs. D. R. C., aged 32, developed tachycardia, nervousness, sweating and loss of weight. B.M.R. plus 30 per cent. No cough or fever. Suggestive enlargement of thyroid in thin emaciated neck. No definite chest findings on physical examination or x-ray but with strong suspicion the patient was treated expectantly for several months. After three months definite signs appeared and relief of all symptoms followed two years of institutional treatment. Operation had been advised by family physician which would have been quite injurious to this patient.

Comment: Early stages of tuberculosis confused with hyperthyroidism.

(d) R. A. P., aged 33, developed nervousness, tachycardia and marked exophthalmos. Normal B.M.R. Examination by many physicians including visit to Johns Hopkins Hospital failed to find definite evidence of hyperthyroidism as cause of exophthalmos. Thought to be due to retro-orbital hemorrhage (chronic recurrent) or orbital cellulitis. Has improved considerably with x-ray therapy.

Comment: Severe exophthalmos suggests hyperthyroidism but may be due to other causes.

(e) K. G., aged 19, lost weight, became nervous, had severe palpitation, tachycardia and suggestive eye signs. B.M.R. found to be increased to plus 29 per cent. Patient had long thin neck and thyroid apparently was enlarged (smooth and symmetrical). Failure to respond to iodine beneficially aroused suspicion and further study into patient's background revealed almost total maladjustment. Mother died in mental institution and patient lived in home of unsympathetic brother. Was extremely unattractive and failed to make progress

Fig. 3. Overtreated hyperthyroidism. (Apathetic phase)

Fig. 4. Carcinoma thyroid (Non-malignant when first seen)

in school. In the more sympathetic surroundings of the hospital and with increased feedings and sedation, a remarkable improvement took place. It is interesting to note that on the night preceding her return home, many symptoms including nausea and vomiting recurred. An operation would have had no effect upon this patient's symptoms.

Comment: Nervosa anorexia with symptoms very suggestive of hyperthyroidism.

TREATMENT

A. *Correct Diagnosis of Goiter but Incorrect Plan of Treatment*

Even as consistent as has become our teachings in regard to an adequate treatment of goiter both non-toxic and toxic, it is still common to encounter patients who have been grossly mishandled frequently with very serious consequences. Perhaps the most innocent goiter is the smooth colloid type which in our experience has not developed into more serious conditions, but one might occasionally become active and should then be treated in the same manner as primary hyperthyroidism. The nodular adenomatous goiter (solitary or multiple) presents an entirely different problem and serious consequences result with sufficient frequency to justify our position in stating that all should be promptly treated surgically upon discovery. While the percentage of cases that have become maligant or become severely toxic is low, it occurs often enough to demand immediate surgical attention for such patients.

(a) Mrs. T. K. D., aged 44, (Fig. 3), had goiter for 18 years. During past 2 years had grown larger, and patient became increasingly nervous and lost weight even with increased appetite. Improvement followed several "rounds" of iodine prescribed by family physician. Finally developed edema, and severe dyspnea and became bedridden. When admitted, condition was very serious, had all signs of cardiac decompensation with auricular fibrillation. Medical measures plus iodine were followed by sufficient relief to do thyroidectomy in multiple stages. Experienced considerable relief for several months but remains a permanent cardiac invalid.

Comment: Early operation for obvious toxic adenomatous goiter would have prevented the serious cardiac condition.

(b) F. W., aged 11, (Fig. 4), first noted single nodule in left lobe of thyroid at age of 7. Was advised to leave it alone by physician until it began to grow 10 months previous to admission. Was then given x-ray treatments with no improvement. When admitted, he

Fig. 5. Neglected hyperthyroidism.

had a large nodular mass on left side of neck with many lymph nodes enlarged suggesting Hodgkin's disease. Biopsy diagnosis: Papillary carcinoma of thyroid, grade III. Complete surgical removal of all thyroid and nodes followed by x-ray therapy has produced successful results for 2½ years.

Comment: Carcinoma in nodular goiter which could have been prevented by early surgical removal.

B. *Neglected Hyperthyroidism*

All mistakes and errors made in the treatment of thyrotoxicosis are not chargeable to the doctor because not infrequently the patient fails to seek medical help or fails to follow the advice and instructions of his physician. The many advertisements in rural papers of so-called "goiter-cures" are testimony to the ends to which patients will go to avoid a necessary goiter operation. Practically all of these magic medicines contain iodine as a base and may be taken by patients over very long periods of time. When these patients finally seek surgical help, serious complications frequently have developed, rendering any operative procedure extremely hazardous.

(a) R. B., aged 28, first noted symptoms of mild but definite hyperthyroidism 7 years previously. No treatment until symptoms became severe two years ago—then took iodine of own accord followed by considerable improvement. Repeated this on several occasions when symptoms returned; finally it had no effect. Developed severe shortness of breath, edema, palpitation and complete exhaustion. Lost 90 pounds in weight in spite of 7000 calorie diet. On admission pulse 130 plus (auricular fibrillation), blood pressure 190/130, weight 89 pounds. Little response to iodine, bed rest and cardiac therapy. Following short first stage removal of one lobe he developed ventricular fibrillation and died.

Fig. 6. Cardiac failure due to neglected toxic adenoma.

Comment: Neglected treatment of typical case of Graves' disease caused unsuccessful surgical result.

(b) C. B. N., aged 47, (Fig. 5), had symptoms of hyperthyroidism for 2 years before complete breakdown occurred due to cardiac decompensation. Lost 110 pounds in weight. B.M.R. plus 70(?). Severe diarrhea with chills and fever. Four operations done under local anaesthesia over period of 6 months followed by satisfactory result. Gained 50 pounds in weight and is able to do part time work. Nervousness and dyspnea return with fatigue.

Comment: Another permanent cardiac invalid which could have been prevented by early surgical intervention.

(c) Mrs. D. K. R., aged 48, Fig. 6 a and 6 b, goiter first appeared during first pregnancy, 24 years ago. Took iodine on occasions with relief of symptoms. Became larger about 2 years ago and all symptoms became more severe. Lost 75 pounds in weight. Also developed severe avitaminosis with symptoms of beri-beri. Pulse 120 plus with auricular fibrillation on admission. Goiter removed in two stages with satisfactory recovery.

Comment: Simple adenomatous goiter not treated early developed serious cardiac and gastric complication.

Summary

1. A definite diagnosis of hyperthyroidism in some patients may be extremely difficult even with full use of all laboratory procedures. Careful clinical study of such patients has no substitute, and should be continued for sufficient time to establish all possibilities. It is particularly important

to postpone surgery until relatively certain that no other method of treatment will produce results.

2. A careful study of symptoms complained of by a patient with a goiter will frequently reveal the important fact that the symptoms and the goiter are not related. Therefore removal of such a goiter will probably cause no change in such symptoms.

3. Thyroid surgery should never be carried out upon a patient with symptoms merely suggestive of hyperthyroidism. And it is well to remember that no laboratory test, including the B.M.R. can be relied upon in cases of doubt.

4. Conditions confused with thyrotoxicosis in this series have been: early tuberculosis, functional neurosis, nervosa anorexia, subacute bacterial endocarditis, orbital cellulitis, and neuro-circulatory asthenia.

5. A non-toxic goiter (adenoma) should be removed when discovered. One is never justified in neglecting proper treatment because of the very serious complications that may develop.

6. A toxic goiter (Graves' disease or toxic adenoma) should receive iodine only for preparation for operation, and this should be carried out promptly without unnecessary delay.

7. The most desirable surgical results follow the use of novocaine for local anaesthesia and removal in several stages whenever conditions requires such caution.

I would like to emphasize one point. All results are not discussed in this paper. While we do not have as large a series as has been mentioned, yet our experience shows that in the last three years we have had no operative mortality, which I think will compare favorably with any clinic regardless of the number of cases. That includes patients between the ages of six and seventy-eight and 20 of those were patients between sixty and eighty.

In conclusion, I will try to summarize this for publication. Our hope was to bring before you a collection of cases with some of the results that we have obtained in our clinic.

DISCUSSION ON PAPER OF DR. D. HENRY POER

Dr. J. K. Quattlebaum (Savannah): It is always a compliment to be asked to discuss a paper of Dr. Poer. However, as usual he has covered the subject so well I can only emphasize some of the points he has brought out.

The most undesirable and unfortunate result following an operation on the thyroid gland is, of course, the death of the patient. When we realize that within the memory of many still living the mortality rate of thyroid surgery once approached 40 per cent, we are all the more amazed at the wonderful statistics quoted by Dr. Lahey last evening. Although he is a master surgeon, particularly in this field, to do over 19,000 goiter operations with a death rate of less than one per cent would indicate that he at least has reached the acme of perfection. However, few can ever hope to remotely approach such results, and most of us will have occasional deaths following thyroid surgery. Many patients reach such an advanced stage of thyrotoxicosis before seeking surgical treatment, and having tried everything else, will come to operation as a last resort. We have all seen such patients. If not operated on all of them will ultimately succumb to the disease; if treated surgically of course a large per cent of them will not survive the operation. However, quite a few will survive it, and will be restored to health, and while the surgeon's mortality rate may be considerably higher than if he declined these desperate risks, yet he will be amply rewarded by the few lives he will save that would surely have been lost otherwise. If a surgeon thinks too much of his mortality rate he may not be giving his best to the very patients who need his services most.

While appreciating the points Dr. Poer illustrates, it has not been my experience to see so many patients who have the undesirable postoperative results mentioned. Perhaps our patients are a little more reluctant to be operated on, and only those who are obviously in need of operation will submit to it. There is a type of patient, however, who is likely to have unsatisfactory results following thyroidectomy. The young woman around twenty years old, who has a symmetrical but not greatly enlarged thyroid gland, who is rather emotionally unstable, and who may or may not have a slightly elevated basal metabolic rate, and other border line evidence of thyrotoxicosis. Such a person should be operated upon only after careful study, and in many instances a hastily advised operation in this type of case will not improve the patient but will make her worse.

The best results can be obtained following operation for adenomatous goiter. This type of goiter should never be permitted to become toxic. An adenoma of the thyroid gland is potentially both toxic and malignant and regardless of the age of the patient, the size of the adenoma, or the duration of the growth, it should be removed. If small so much the better. No one advises leaving a breast tumor until it is large and possibly malignant, and the same attitude should be taken concerning the adenomatous goiter. A large per cent of adenomatous goiters become toxic eventually.

often after many years, when the patient has reached the age where other degenerative changes may be present. Iodine does not produce the beneficial effect in this type of goiter that it does in the preparation of the exophthalmic goiter and consequently the risk is greater. If the patient is of advanced age, the risk is very considerable. Dr. George Crile, Jr., has reported a series of cases of toxic adenomatous goiter patients over 70 years of age with a mortality of 25 per cent following operation. This is more like it, and it is refreshing to find a surgeon who admits such results. (Exhibit at Interstate Post-graduate Assembly, Philadelphia—October, 1938).

There is no more brilliant chapter in the history of medicine than the surgical conquest of goiter. If patients are selected with proper regard for the need of the operation, properly and adequately prepared for it, and the operation performed by one experienced in thyroid surgery, the good results will equal those obtained, by any treatment for any other disease to which mankind is heir.

Dr. Ernest F. Wahl (Thomasville): I think this paper of Dr. Poer's is very timely because it is a well known fact that the pendulum of throught swings in cycles. Fifteen years ago it was unusual to see a patient in consultation where a diagnosis of coronary disease was thought to be present, while at the present time we see a great many clinical diagnoses of coronary disease where the condition does not exist. The same thing is true in thyroid disease. Fifteen years ago there was much less thyroid surgery performed than today. When I first attended a district meeting in Georgia fourteen years ago, Dr. Charles Watt, of Thomasville, and myself discussed the danger of indiscriminate use of iodine for thyroid disease, especially in patients where the condition was not definitely known to exist but simply given with the hope that perhaps if they had thyroid disease it was going to be of some benefit. We have continued to discuss the dangers of the use of iodine up to the present time and as far as I can tell it is used as much as it was fourteen years ago. The result is that we have not seen one single patient with hyperthyroidism or adenoma of the thyroid gland that has not been given iodine for a period of months or years. This makes the surgery, if surgery is going to be performed, exceedingly difficult. It is difficult to know always what is going to happen to that patient. The hope of what iodine will bring about also causes many patients to be treated at home until any kind of treatment is hopeless. Dr. Poer has seen some of these improperly treated patients who came to us. Such things can be avoided.

It is refreshing to have a paper discussed from the view of unsatisfactory results. We don't usually deal in such disagreeable subjects. In thyroid disease the question is how to begin treatment. Certainly some of the end results will depend on what kind of early treatment is used and a correct diagnosis, as pointed out by Dr. Poer.

Some of the unsatisfactory results are due to inability to follow some of these patients after operative treatment. Not all results are going to be spectacular although the patients needed operation, were adequately prepared and the operation was properly performed. Some of them must be followed over a long period of time, nursed a long time and given intelligent care before the maximum result will be reached.

I think a word of warning might be sent out in regard to so-called masked hyperthyroidism that has been brought to the attention of the public in the last few years. Heart disorders with spectacular results from thyroid surgery are rare except in clear cut cases of hyperthyroidism. I think it would be better to miss an occasional case than to treat patients indiscriminately for hyperthyroidism when they do not have that condition.

HYPERPARATHYROIDISM WITH SURGICAL CURE

Report of Case

Bruce Threatte, M.D.
W. F. Jenkins, M.D.
Ragsdale Hewett, M.D.
Columbus

By Bruce Threatte, M.D.

Hyperparathyroidism, also known as generalized osteitis fibrosa cystica and Von Recklinghausen's disease, is characterized by parathyroid hypertrophy or tumor, increased blood calcium, and decreased blood phosphorus, with increased urinary output of calcium and phosphorus, decalcification of the bones with replacement fibrosis, muscle weakness and a tendency to the formation of renal calculi, and renal disease. The following case report, the most remarkable features of which are the x-ray findings is presented:

A young colored woman, aged 29, entered the hospital Dec. 1, 1939, with a chief complaint of severe pain in her hips, right leg, right shoulder and arm, associated with extreme weakness and irregular periods of nausea and vomiting.

The patient gave the following history: Early in April, 1939, she began losing her appetite and was occasionally nauseated. This was accompanied by a rather severe and progressive loss of weight, without any appreciable loss of strength. At this time she consulted her family physician, who ordered an x-ray examination of her chest and a metabolic rate.

The x-ray examination was essentially negative for tuberculosis but the metabolic rate was plus 22. Soon after this time the patient's nausea cleared up, her appetite became better and she stopped losing weight

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to any great extent, and she was under the impression she was gradually getting better until early in October, 1939, when she began having pain in her right hip and leg, accompanied by loss of strength and inability to hold out to do any work. This condition grew progressively worse until, within a few weeks, she was having severe pain in her right hip and right leg, and had become so weak that the least exertion completely exhausted her, and increased the painful condition. About this time, a floor lamp fell over, striking her on the left shoulder and arm, causing severe pain and some swelling. The swelling disappeared in a few days, but the pain persisted and gradually grew worse, so she entered the hospital. At this time she was complaining of such acute pain that an x-ray examination was ordered. In moving the patient back from the x-ray room and while transferring her from the stretcher to the bed, she suffered a spontaneous fracture of the right femur, which was immediately placed in a spica cast.

Prior to this illness patient had always been in good health. She is one of four children, all living and well, of living and healthy parents. She had the usual diseases of childhood. She is married and is the mother of three children, all living and well, ages 8, 6, and 4 respectively. Menses were always regular and normal up to present illness when the flow became scanty and ceased entirely early in November, 1939. Patient also noticed that she had nocturia and polyuria since this illness began.

Physical examination revealed a fairly well developed young colored woman, appearing remarkably emaciated, lying quietly in bed. The most unusual finding was the elasticity and softness of the chest wall: the ribs were easily compressed and had a rubbery, springy feel to them. With each pulsation of the heart the overlying chest wall was thrust forward, giving the impression that only a membrane covered the heart. There was severe pain complained of with pressure and motion in left shoulder and arm. Also, pain was complained of on pressure over all the long bones of the body. The right femur was fractured in its upper third.

There was no apparent deformity of the head, trunk, or appreciable bowing of the long bones. There was no palpable or visible swelling over any of the joints or bones of the body. The bones in the legs would actually bend on slight pressure. The hair was unduly dry and brittle. The teeth were unusually sound with no cavities and were securely held in their sockets. The heart was not enlarged and no murmurs were present. The pulse rate was accelerated, running from 100 to 120. The temperature on admission was 99° F. There was no enlargement of the liver or the spleen. The abdomen was free of rigidity and masses. The blood pressure was 128/68.

The thyroid gland was not found to be enlarged. There was a questionable small nodule on the mesial side of the right sternomastoid muscle near its insertion.

The routine laboratory report on admission showed the following: Blood count: Red 4,450,000; white 9,400; Hb. 80. Polys. 50; small 17, large 27, monos 6. Wassermann and Kahn were negative. Urine was essentially negative except for a low p.s.p. Blood chemistry showed: Increase in serum calcium 14.9; and decrease in serum phosphorus 2.73. X-ray examination revealed osteoporosis of bones, and the presence of large cysts in the femurs, which will be described in detail by Dr. Jenkins, the consulting radiologist on this case.

In the presence of this history, with the physical findings with the laboratory reports of a high blood calcium and a low blood phosphorus, with the increased urinary output of calcium, and with the x-ray findings showing the characteristic changes in nearly all the bones, a diagnosis of hyperparathyroidism was made and operation was decided upon.

Under a local anesthetic the usual transverse incision for thyroid exposure was made. The right lobe of the thyroid was dissected, exposing a small yellowish-brown encapsulated mass about the size of an English walnut, which was cystic. This tumor was behind the fascia of the thyroid at its lower pole. The mass was dissected out in its entirety, although the cyst was ruptured in the process.

Pathologic report: Gross specimen was an encapsulated structure which had been previously opened along one side. It measured 2.8 x 2 x 1.3 cm. The outer surface was smooth but slightly irregular, and had a varigated gray, pink, and bright yellow color. The structure appeared to be partially cystic, but also contained soft shiny material having a gray and pale brown color.

Microscopic examination: The capsule is dense hyalinized fibrous tissue, in which there are a few groups "of cells similar to those of the main portion of tumor. Most of the tumor cells are fairly uniform in size and have indefinite outlines with a basophilic cytoplasm and round hyperchromatic nuclei. Some of the cells appear to have a vacuolated cytoplasm and others are acidophilic. A few cells are quite large. A small number of cells scattered throughout the tumor are two to three times as large as the average cell. Mitoses are not seen. Diagnosis parathyroid adenoma."

Postoperative course: The immediate postoperative course was very satisfactory. The pain in her legs, arms, and shoulder soon disappeared. The temperature never went over 100.6 following the operation with the pulse rate in keeping.

Blood chemistry two days after the operation showed a reduction in the calcium; at this time calcium was 12.87 with the phosphorus 2.15.

At this time patient seemed to be gaining in weight unusually fast and upon close inspection it was noticed that a generalized edema was developing. This edema soon became massive and was of the nutritional type, as shown by the decreased serum proteins and a shift of the albumin and globulin ratio. Albumin at this time was 2.2 and globulin 2.3. The kidney function was within normal limits as indicated by p.s.p. tests. We believed that this was a postoperative hypoproteinemia. The blood count showed a postoperative anemia: red, 3,150,000; white, 12,600; Hb. 60; polys. 70, small 26, eosin. 4.

The patient was given repeated blood transfusions and a high protein diet, with large doses of viosterol and injections of liver extract. The edema gradually subsided and was completely gone at the end of a few weeks.

Two weeks after the operation the patient developed a mild tetany, as shown by decreased blood calcium; at this time calcium had dropped to 8 with a phosphorus reading of 2.6. Also, by the signs of Trousseau and Chvostek, which were positive, showing hypersensibility. This condition was overcome by large doses of calcium and viosterol by mouth and by small amounts of calcium intravenously, and by giving parathyroid extracts.

Six weeks after the operation all signs of edema and tetany had disappeared and the patient's general condition and outlook on life were very satisfactory. At this time, blood calcium showed 9.4 with phosphorus of 3.6, which is within the normal range. X-ray examinations were made at about six-weeks intervals and showed slow but progressive recalcification of all the bones of the body. The cast which was placed on the right leg has been removed and the fracture showed only a soft callous after ten weeks. There is at the present time improved muscle tone, and the chest wall has lost most of its unusual rubber-like elasticity.

The calcium and phosphorus in the blood is now approaching normal. The nutritional edema has been overcome, and we feel confident that the patient is definitely cured, although anatomically she must still be looked upon as a parathyroid case, and how long it will take her bones to recalcify completely, and when she can again take her place in active life, is entirely problematical.

Hyperparathyroidism with Surgical Cure

By Wm. F. Jenkins, M.D.
Columbus, Ga.

It is now generally conceded that the etiology of the clinical entity known as von Recklinghausen's disease is hyperparathyroidism. Adenoma of the parathyroid gland has been so consistently found in these cases which were surgically explored that we presume the existence of an adenoma when the diagnosis of this entity has been positively made. We believe this case deserves special interest for the following reasons:

1. It is a proven case of a somewhat uncommon disease.
2. It is a pure form of this disease, lacking the secondary features mentioned by some authors as often occurring, for example: increased density of the skull and other hypertrophic changes.[1, 3].
3. In spite of extreme severity of decalcification of bones, there has been no bending or bowing but there have been pathologic fractures which probably spared the bones of the more usual results of softening.
4. An unusually short course of the disease according to history of symptoms prior to diagnosis and treatment.
5. A very satisfactory improvement during the relatively short time that has elapsed since surgical removal of the cause of the disease.

In this case the diagnosis was first made by reason of typical x-ray findings and later confirmed by history and blood serum chemistry. Before presenting these x-ray findings permit me to recall to your mind their physiologic basis.[2] The function of the parathyroid is to form a hormone known as parathormone, which regulates the calcium metabolism so as to maintain a normal concentration of calcium in the blood. The bones act as reservoirs for calcium and this hormone in some way, not well understood, under normal conditions, controls the balance between blood serum calcium and bone reservoir calcium. In the presence of an excess of this parathormone in the blood the blood serum calcium rises to abnormal levels, and the bone calcium decreases. At the same time, the calcium-phosphorus balance is disturbed resulting in lowering of blood serum phosphorus. Adenoma involving the parathyroid increases the production of parathormone which enters the blood stream producing this before mentioned phenomena. Thus an adenoma brings about decalcification of the bones which is readily recognized in radiographs. While this explanation is satisfactory for decalcification, I do not believe it accounts for the formation of cysts which usually accompany generalized decalcification in this disease. I have learned of no generally accepted theory to explain the formation of these cysts.

This patient was first referred for x-ray examination of lungs on July 10, 1939, because of recent loss of weight and general let-down feeling. Her physician was apprehensive that she might have tuberculosis which had escaped recognition by clinical examination. This examination revealed a calcified Ghon's nodule in the base of right lung and calcified glands in both hili indicating healed primary tuberculous infection, not thought to have clinical importance at the moment. Othewise, it was negative. Five months later, Dec. 4, 1939, she was

again referred because of pain in right thigh and for a clue that might explain her fatigue and general weakness. My report of this examination was as follows:

"All bones of the body show a very pronounced osteoporosis. There are also some areas in both femurs having a cystic appearance. At least one of these shows some expansion of the cortex which usually is not found in other conditions which might be confused with a cyst. It is my opinion that this is a case of fibrocystic disease and constitutes the clinical entity of von Recklinghausen's disease. There is no bowing of the bones, no deformities, but there is evidence of a united fracture of the humerus."

I now project some of the radiographs made during this examination.

Skull: Note the osteoporosis but no thickening to confuse it with Paget's Disease.

Pelvis: Again a pure form of osteoporosis unlike the usual bullet-holes of multiple myeloma but somewhat resembling diffuse involvement by metastatic carcinoma. However, in carcinoma, one would not usually see such osteoporosis in uninvolved portions of bones.

Femur: Note the multiple cysts in addition to generalized osteoporosis. One cyst has an expanded cortex as its outer wall and it is not definitely broken through. That would not be expected in carcinoma or myeloma which are the usual lesions that confuse the diagnosis of von Recklinghausen's disease.

Hand: Here is the most characteristic picture of osteoporosis. One gets the impression that a tiny scoop has been used to remove the calcium from the bones, leaving the supporting texture intact.

In summary of the diagnostic features of this case as observed by x-ray examination, I wish to emphasize that decalcification of bones is the leading sign and cyst formation is the variant. All bones, especially the long shafts, show osteoporosis but all do not show cysts.

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DISCUSSION ON PAPER OF DOCTORS THREATTE, JENKINS AND HEWITT

Dr. Ragsdale Hewitt (Florence, S. C.): I have observed this patient with keen interest since the first day she entered the hospital. She has been my pet patient. I would like to trace the clinical course of her hospital stay to date.

She presented the typical clinical picture of loss of weight, progressive muscular weakness, hypotonia, pain in bones, urinary disturbances, hypercalcemia, and hypophosphatemia, as is usually described in this disease. One unusual finding was the elasticity of the chest wall. This was our first physical finding which led us to suspect bone pathology. Diagnosis was confirmed by x-ray and laboratory findings. The teeth were unusually well preserved.

Shortly after the patient entered the hospital she received a pathologic fracture of the right femur while being transferred to the x-ray room. She was considered too weak for general anesthesia and the bones were so decalcified they could not be seen under the fluoroscope. A body cast was applied. After an adenoma of the parathyroid was removed the patient developed generalized edema and the cast was removed. Skin traction was then employed. The edema was found to be due to hypoproteinemia and was corrected by repeated blood transfusions and diet. X-rays taken at regular intervals showed the fracture to be healing rapidly, and the bone cysts filling up and presenting a denser appearance.

This patient was fortunate in having no renal stones. Kidney function tests were within normal limits. The literature shows that some of these patients when well on their way to recovery die of kidney complications as a result of stones. Retrograde pyelography of our patient showed no stones in the genito-urinary tract.

A re-check of all laboratory findings recently showed the patient's blood calcium 9.9 mg., blood phosphorus 4.06 mg., and blood count and urinalysis within normal limits.

This patient now has a good outlook on life. Her regular menses have returned, appetite is good and she is well nourished. She is able to be about the hospital in a rolling chair and is anxious to go home and start walking.

Thus I think we can safely say that this patient is cured and will soon be able to assume her former activities.

Dr. James J. Clark (Atlanta): This has been a very interesting presentation of this unusual and somewhat rare disease, and illustrates very forcibly the fact that a careful and well trained roentgenologist can be of tremendous assistance in recognizing these unusual diseases.

The relationship between the parathyoid glands and osteitis fibrosis cystica is well recognized. It was thoroughly presented by Camp and Oschner in 1931; in 1935 by Schilling and in 1936 and 1939 by Merritt and Lattman, who discussed radiation as a method of treatment.

Schilling in 1935 classified hyperparathyroidism under three clinical types.

1. Classical form in which lesions of osteitis fibrosis cystica predominate.

2. Osteoporotic form in which the decalcification of the skeleton is generalized and no tendency toward cyst formation.

3. Metastatic form in which the chief symptoms are associated with calcium deposition in the soft tissues, especially the kidneys where it occurs in the form of calcinosis or of calculi. The real pathologic process is osteoporosis. It differs from senile osteoporosis and atrophy due to disuse in that in these latter instances the thinned compact and spongy bone is rarely replaced by fibrous tissue, whereas in hyperparathyroidism the resorptive and reparative processes are characterized by the presence of fibrous tissue. We also know that laboratory findings are not always reliable. We do not always have high calcium output and low serum phosphate. We also see cysts in localized areas, in one or

two vertebrae, or in single bone, without other bones being invaded.

I have several lantern slides I would like to show to illustrate a case of this sort which occurred in a child who at nine years of age had a fracture of the femur. A year later she had a second fracture of the same femur. Then she had a fracture of the ankle and later a third fracture of the femur.

These slides show multiple cysts which are typical of osteitis fibrosa cystica. They are located in the upper third of the femur and the repair which followed the fractures has produced some deformity. There are also cysts in the opposite femur as well as multiple cysts in the tibia, the tarsal and metatarsal bones. This child showed a high calcium output, and her neck was explored in both parathyroid areas, but no adenomas were found.

On the theory that her parathyroid glands were overactive she was given several series of x-ray treatments to the parathyroid region, including the superior mediastinum.

During the past four years she has developed normally, and, while the cysts in these various bones have not entirely disappeared, considerable calcium has been laid down, with the result that the bones have become stronger, and there have been no further fractures.

Her urinary calcium and phosphate are at a normal level, although her phosphatase is high.

We also see this condition in elderly people. It is shown particularly in the vertebrae. The calcium is absorbed, the vertebrae are compressed. They present a biconcave appearance and there is an increase in the amount of the intervertebral cartilage. These lesions are frequently mistaken for fracture, and in patients where there is no history of trauma and you find a vertebra giving away, you should check the calcium and phosphate, and frequently you find that you are dealing with a case of parathyroidism, which need not be an adenoma of the gland, but is simply an overactivity on the part of the parathyroid glands.

Radiation to the parathyroids as well as to the degenerative vertebrae will give very satisfactory clinical results.

Dr. B. H. Clifton (Atlanta): There is very little left for me to say about this condition as it has been so well covered.

However, I wish to commend Drs. Threatte, Jenkins and Hewitt for the recognition and results obtained in this case. It is fairly definitely recognized now that hyperparathyroidism is a distinct entity. It has fairly definite manifestations and is caused by a hyperfunctioning adenoma or hyperplasia of a parathyroid gland. Practically all of the patients are cured if the disease is recognized early and the tumor removed. There are several points I would like to stress in hyperparathyroidism:

1. There is decalcification of the bones.

2. There is excess calcium in the blood in practically all of the patients.

3. There are pains at various locations which are hard to account for, especially in the back, in the joints and in the extremities.

4. There is marked weakness and frequently marked loss of weight.

5. Spontaneous fractures or fractures upon slight trauma are very common and very often this is the first thing that happens to lead one to suspect the disease.

6. There is a strong inclination for urinary calculi to form or to reform after they have been removed once. Any one of these signs or symptoms that cannot be explained satisfactorily otherwise should lead one to suspect hyperparathyroidism and then a more thorough investigation should be made.

My only patient was a girl fourteen years of age whose major complaint was spontaneous fracture of the upper end of the right femur. X-ray examinations revealed decalcification of the bones. Further investigation revealed excess calcium in the blood. The fracture was handled properly by the orthopedic surgeon. A parathyroid tumor was removed low down on the left side. It has been nearly four years since the operation and the patient remains well.

Parathyroid bodies, as Dr. Lahey has told us, vary so much in location that if you do not find the tumor at the usual locations of the normally placed parathyroid bodies, then you might find it within the gland or within the neck or under the sternum. I think Dr. Cutler advised x-ray therapy, especially if you could not find the tumor and remove it surgically.

Dr. Bruce Threatte (Columbus): I do not have anything further to add to it but I would like to say, on behalf of Dr. Hewitt, this patient is quite a pride of his. If any of you men are coming near or through Columbus, Dr. Hewitt and I would be very glad for you to see this patient.

CHRONIC TRACHOMA GREATLY IMPROVED BY SULFAPRYIDINE TREATMENT

An astonishing improvement in the chronic form of trachoma (a contagious granulating condition of the eyelids) when treated with sulfapyridine is reported by M. P. Spearman, M.D., and W. E. Vandevere, M.D., El Paso, Texas, in *The Journal of the American Medical Association* for Nov. 11.

"While realizing that adequate conclusions cannot be drawn from clinical results obtained in only two cases," the authors state, "we nevertheless were greatly impressed with the remarkable remission of the pathologic signs. Both cases had proved intractable to all other methods of treatment. Vision was improved greatly in both cases. We plan to continue our present treatment at least until maximal objective and subjective improvement is obtained."

Beneficial treatment of trachoma by sulfanilamide, of which sulfapyradine is a derivative, has previously been reported.

Selective Service registrants who are qualified physicians and surgeons are urged to apply for commissions in the Medical Reserve Corps, according to an announcement by National Headquarters, Selective Service System.

State Directors of Selective Service have been asked to request local boards to communicate with all such registrants and encourage them to seek admission into the Reserve Corps instead of inducting them as selectees for military training.

INTRAVENOUS CHOLECYSTOGRAPHY

Review of Five Hundred Cases

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Gallbladder study by means of x-ray has proved its value and is now generally accepted by the medical profession. It has in no sense supplanted clinical diagnosis but since the degree of accuracy of this method is satisfactorily high, x-ray findings should be evaluated as rather important in the sum of the clinical knowledge concerning any individual case.

In the diagnosis of gallbladder disease by x-ray a number of possibilities are to be remembered to avoid false interpretations. One of these possibilities is congenital anomalies.[1]

1. Anomalies of number: absent, rudimentary, double or multiple.
2. Anomalies of size.
3. Anomalies of form: loculated, bilobed, fishhook, or capped.
4. Anomalies of position: lumbar, iliac, pelvic, median, or intrahepatic.

If the gallbladder were absent it would be diagnosed as a pathologically functioning gallbladder because of non-filling. The same diagnosis would be made of a rudimentary gallbladder. Fortunately, the incidence of such phenomena is very low, especially in this section, as the pathologists here have seen no case in Atlanta. The average of such cases is one in every 500 autopsies. One hundred seventy-five cases have been collected by Kirshbaum.[2]

Bilobed and capped gallbladders, which are not uncommon, running about 4 per cent here and elsewhere, can be misinterpreted since the separate shadows show increased density when they are overlapping.

The realization that these and other anomalies can and do exist will aid in diagnosis and surgical treatment. Twenty cases of left-sided gallbladder (attached to under surface of the liver) have been reported.

In regard to pathologically functioning gallbladders it is to be remembered that x-ray findings alone cannot diagnose infection nor distinguish a protozoan, tuberculous, or non-specific infection from pathologic function the result of new-growth. Demonstration of stones carries with it, of course, the diagnosis of infection. The demonstration of a pathologically functioning gallbladder also means the gallbladder carries stones in a high percentage of cases whether demonstrated on x-ray film or not.

TABLE 1-A
Operated Cases

X-ray Findings	No. of cases	Cases with stones	Per cent with stones
Pathologic gallbladder	126	76	62.3
Borderline, probably pathologic	31	8	25.8
Total of above	157	84	53.5

TABLE NO. 1-B

X-ray Findings	No. of cases	Cases with stones	Per cent with stones
Non-pathologic	27	3	11.1
Borderline, probably non-pathologic	5	2	40.0
Total of above	32	5	15.6

From the tables 1-A and 1-B above we see that 89 cases or 46.5 per cent of 189 operated upon showed stones.

Benign tumors, papilloma and adenoma, of the gallbladder are encountered occasionally. None was in this series of cases, however. Papillomas show small "punched-out" areas, oval or round defects, usually multiple and usually along the margins of the gallbladder near its neck. Both the papillomas and adenomas are usually associated with a normally functioning gallbladder.

The most common tumor of the gallbladder is carcinoma and in view of its infiltrative tendency and the fact that it usually arises in or near the neck, the x-ray simply shows non-filling without any distinguishing characteristics. Kirklin[3] states that, "a defect, larger than 2 cm. with an irregular border should make one suspect the possibility of malignancy." Extrinsic adhesions may confuse the picture. There

was only one case of primary carcinoma of the gallbladder in the 189 cases operated upon in the present series.

Cholecystography

In 1924, Graham[4,5] perfected the method of gallbladder visualization by using as a vehicle a combination of a halogen (opaque to x-rays) and phenolphthalein, which Abel and Rountree[6] had previously shown in 1909 to be almost entirely excreted by the liver. The dye now in wide general use and most preferred for this purpose is tetraiodophenolphthalein.

The correct interpretation of cholecystography depends on five requirements.

1. The dye must reach the liver.
2. The dye must be excreted from the liver into the bile.
3. The cystic duct must be patent.
4. The dye must be stored and concentrated in the gallbladder, the gallbladder must be contractile, and the common duct patent.

There are various methods of cholecystography, such as intravenous, intravenous with 40 per cent glucose, single dose oral, double dose oral, divided multiple dose oral, etc. Glucose and decholin are used by some to increase the speed and the concentration. Some use paregoric to prevent diarrhea when the oral method is used. All methods have their advocates and all are satisfactory. If the oral method is being used, we would advise the double dose method with paregoric.

We use the intravenous method in which 2.5 grams of tetraiodophenolphthalein are injected slowly, over a period of ten minutes, or longer, approximately four hours after the evening meal. X-ray examination is made eight to twelve hours later and again one to two hours after the ingestion of a meal of fats. We use this method because it assures the dye reaching the liver and consequently the test does not have to be repeated as frequently as when the oral method is used. The intravenous method also prevents the patients, some of whom are illiterate, from making errors. When the x-ray findings are doubtful or poorly visualized, enemas are given and various projections in oblique, supine, or upright positions are made.

Table No. 2

Reactions to Intravenous Gallbladder Dye

X-ray Findings	No. of Cases Injected	No. of Cases Showing Reaction	Percentage Showing Reaction	Remarks
Normal	184	23	12.6	Headaches and pain predominated. Two had chills, two nausea, one showed a fall in pulse rate from 80 to 64, one claimed insomnia, and one claimed "hot and cold flashes."
Pathologic	232	29	12.5	Chills, headache, and pain predominated. Three had nausea, two claimed "weakness," one stated "stuffy feeling in chest," one had an asthmatic attack.
Borderline	82	11	13.4	Chills, headache, and pain predominated. One stated "dizziness," one "numbness of fingers," one "restless," one "felt hot," and one "heavy feeling around heart."
Total	500	63	12.6	

The intravenous method is probably contraindicated in elderly patients with myocarditis and/or extensive arteriosclerosis; possibly also in toxic or infectious jaundice. The oral method has no contraindications, except naturally, a high gastro-intestinal obstruction.

In regard to reactions from the dye, these have all been mild, no severe form having been encountered. The reactions last from a few minutes to several hours. There seems to be a fairly close correlation between the severity of the illness and the reaction ob-

served, a circumstance true with the oral method also. Though many of the patients in this publicly supported hospital, as in other like institutions, are very ill, the percentage of reactions is much lower than that generally reported, probably because of the central supply room's intravenous preparation. It is also interesting to note that in the intravenous method the percentage of reactions is much lower than in instances in which the oral method is used, especially when diarrhea cases are included as reactions. In 1980 oral cases reported in Feldman's[16] recent text, 40.3 per cent showed reactions. The reactions following the oral method, however, seem to be less marked. We feel that the intravenous method using tetraiodophenolphthalein is as safe as the intravenous administration of other medications such as glucose, etc. If we did not, the method would be abandoned in favor of the oral.

The following signs denote an abnormal gallbladder:

1. Absence of shadow.
   Since hepatic disease and biliary duct disease may be responsible, diagnosis of gallbladder disease in the presence of jaundice may give rise to error.
2. Late appearance of shadow.
3. Persistence of shadow with unvarying size of the shadow.
4. Persistent faintness.
   This accounts for most of the errors. Why? Because faintness and normal density have no sharp dividing lines and also because in the circumstance of a faint shadow there is no way of determining whether the liver was excreting well or whether the cystic duct was partially occluded. If the shadow is faint the test should be repeated. Golden.[8] in his very recent text, states that the variability of absorption of the dye from the intestine results in more of the problematic faint shadows than when the intravenous method is used.
5. Stone shadows.
   May be opaque or non-opaque. Gas in the small intestine can easily be called a non-opaque stone. Only 15 per cent of gallstones have sufficient calcium to be visualized on a flat film without dye administration.
6. Deformities of contour.
   Of little practical day to day value.
7. Delayed emptying.
   This is highly significant. Contractility is lost if there is more than slight or microscopic cholecystitis. When the fatty meal [9 10] is given the gallbladder should show a minimum of 40 per cent variation in size after thirty to sixty minutes, and a marked variation (not necessarily empty) after three hours.

The question is often asked, "If the patient were jaundiced, is the Graham-Cole test of value?" Only in cases where the gallbladder is well filled, indicating that the extrahepatic bile passages are functioning and hence the disease is intrahepatic.[11] No effort was made to throw out cases of toxic hepatitis due to arsenic and cases of jaundice in small children. Cases of liver abscess, all with jaundice but with non-filling of the gallbladder were classified as pathologic.

The reliability or accuracy of cholecystography in reported series is high. This varies from 80 to 98 per cent, with the highest percentage obtained in the reported pathologic cases.

Our series of 500 cases shows 86.8 per cent accuracy of the test as in table No. 3.

TABLE No. 3

X-ray Findings	Number of Cases	No. of Cases Confirmed	Percentage of Accuracy
Normal	201	161	80.1
Pathologic	299	273	91.3
Total	500	434	86.8

The same cases analyzed differently show the accuracy as in table No. 4.

TABLE No. 4

No. of Cases X-rayed	Disposition of Case	No. of Confirmed Cases	Percentage of Accuracy
189	Operated	171*	90.4
311	Treated medically	267†	85.9
Total 500		434	86.8

*Of those operated upon 176 were confirmed by pathologist 93.1 per cent—including six cases that he considered doubtful. If those six were all non-confirmatory, the accuracy would be 90.0 per cent. The surgical findings at the time of operation confirmed 168 cases or 88.8 per cent. The average of these three methods gives 171 confirmations or 90.4 per cent accuracy.

†Diagnosis was gallbladder disease at time of discharge from the hospital.

The same cases analyzed in greater detail bring out some interesting sidelights. See table No. 5.

In conclusion, let it be emphasized that the x-ray interpretation does not and should not assume the full responsibility of a diagnosis. It can be of definite aid in cases of questionable gallbladder disease.

Summary

Anomalies, infections, and benign and malignant tumors of the gallbladder, with

Table No. 5

X-ray Findings	Disposition of Case	No. of Cases	No. of Cases Confirmed	Percentage of Accuracy	
Normal	Non-Surgical	156	135	86.5	Discharged under 24 different entities, with heart, G.U., and intestinal disease predominating.
Normal	Surgical	28	22 (Pathologist, with doubtful and possibly pathologic).	78.5	Evaluation often difficult. Surgeons included adhesions; pathologist did not. Questionable cases showed only microscopic pathologic changes.
			11 (Surgeons)	39.3	
Normal? Borderline	Non-Surgical	12	7	58.3	Confirmation depended on discharge diagnosis.
Normal Borderline	Surgical	5	3 (Pathologist) 2 (Surgeons)	50.0	
Pathologic	Non-Surgical	108	106 (Carried discharge diagnosis of G.B. disease).	98.1	
			100 (Six of above were questionable cases of G.B. disease).	92.5	
Pathologic	Surgical	126	120	95.2	One surgical specimen called non-pathologic by pathologist. Two cases considered normal by surgeon and gallbladder itself not operated upon.
Pathologic? Borderline	Non-Surgical	35	25	71.4	
Pathologic? Borderline	Surgical	30	27	90.0	Pathologist stated three cases were normal contrary to surgeon's opinion.

their radiographic findings, have been given.

The basis of cholecystography, the technic, and normal gallbladder functions were described.

Out of the 500 patients given tetraiodophenolphthalein intravenously 12.6 per cent showed a reaction, none of which was alarming.

In this series of 500 cases the radiographic Graham-Cole test proved accurate in 86.8 per cent. The highest percentage of accuracy was attained in those cases showing a pathologic function. The diseased gallbladder, borderline, or doubtful cases carry a lower percentage of accuracy and should be repeated.

Cholecystography is a valuable adjunct in diagnosis and treatment of disease.

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SARCOMA OF THE BREAST

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Time and space do not permit a detailed discussion of all the clinical and pathologic data of sarcoma of the breast. There are many different types which vary greatly, both from clinical and pathologic standpoints, and much could be said about each different type of tumor. It is the purpose of this paper to present rather briefly some of the main features and to present illustrative cases of some of the different types of mammary sarcoma which have been personally studied.

Sarcoma of the breast forms a definite and well recognized group of mammary tumors. Although its occurrence is relatively infrequent as compared with the various types of carcinoma, nevertheless statistics show a not inconsiderable percentage of mesoblastic malignant tumors which have been reported from time to time. The literature contains numerous articles and reports of mammary sarcoma with discussions which are more or less complete, varying from individual case reports to a more comprehensive review of the literature and discussion as to histogenesis.

The occurrence of sarcoma of the breast varies quite widely in these reports. The reason for this variation in percentages will be shown and I believe easily understood later on. Miller and McCarty[1] state that sarcoma occurs in 0.36 per cent of all breast tumors, whereas Gebele[2] reports 9.5 per cent and Poulsen,[3] 9.3 per cent. Fox,[4] on the other hand, found 1.6 per cent of all breasts examined to be sarcoma and that 3 per cent of all *malignant* breast tumors were sarcomatous. In comparison, Geist and Wilensky[5] in the examination of 558 breast "lesions" found 3.9 per cent sarcomas, and of all malignant mammary tumors 7.7 per cent were diagnosed as sarcomas. Winslow[6] studied two series of cases with rather uniform findings. In one series 3 per cent of all breast tumors were sarcoma, and in the other series 2.9 per cent. The occurrence of sarcoma is very low in the reports of Schreiner and Thibaudeau[7] who found only 0.5 per cent of sarcoma in malignant breast tumors and 0.38 per cent in all breast lesions. Sailer[8] finds a low percentage, his report giving 15 cases or 0.8 per cent of sarcoma in a series of 1888 malignant breasts. Numerous other series and findings could be briefly stated, but most of them are fairly uniform in their figures. The higher percentages are found in the earlier reports. The later exclusion of Brodie's cystosarcoma and questionable tumors results in lower figures. From those given here it is seen that sarcoma of the breast occurs approximately at about 1.8 per cent of all breast lesions, with a higher percentage if only malignant tumors are considered. My personal experience shows 1.3 per cent of sarcoma in a total of 1858 breasts examined and 3.1 per cent of all (771) malignant breasts. There were 24 cases of sarcoma, classified as follows:

SARCOMA OF BREAST

Fibrosarcoma	4
Liposarcoma	1
Mixed Cell (fibrosarcoma)	2
Chondrosarcoma	1
Adenosarcoma	3
Perithelial	1
Neurogenic	3
Carcinosarcoma	1
Undifferentiated	1
Lympho-(?) Hodgkin's-(?)	1
Serocystic sarcoma (Brodie)	6
	24

Carcinoma of the breast is a rare tumor in the male, and sarcoma is even much more so. Only occasional cases occurring in the male have been reported. Sarcoma may occur at any age, cases being reported as young as 13 and as old as 75, the average being 49. The duration varies in reported cases from 1 day to 19 years. Most patients give a history of a tumor of long duration, which when discovered was very small and quite probably a fibro-adenoma which persisted with little or no change for many years. A traumatic history is obtained in some cases, and is emphasized by some

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The material for this study is from the Steiner Clinic, the Winship Clinic of Emory University School of Medicine, and private cases referred to the writer for diagnosis.

writers.[9] They may further report that they noticed a gradual enlargement of the tumor of greater or less rapidity until the tumor became of extremely bulky size. This is quite in contrast to carcinoma where the tumor may remain of relatively small size or may involve the entire breast without much actual tumor formation. As the tumor grows the skin becomes stretched and thinned over the mass; the superficial veins become dilated and eventually the skin will break and the tumor fungates through. In spite of this tremendous pressure and massive tumor formation, the skin does not become invaded by the tumor and the nipple is rarely retracted, other points in differentiation from carcinoma where skin involvment is a common occurrence. This is quite the usual appearance in the bulky types of sarcoma, or those which have been present for a long time. The earlier lesions may be small, encapsulated, movable, and give the clinical impression of fibro-adenoma. Pain is present in about one-third of the cases.[5]

The gross appearance of these sarcomas varies considerably due to the various types of tissue which may make up the tumor, but in general there is a rather definite capsule which may be deficient in some parts. These tumors are firm or cystic, again varying with the type of tissue contained in the mass, the fibrosarcomas and the chondromyxosarcomas firm, the more cellular types being somewhat softer and cystic tumors fluctuant. There may be and frequently is distinct lobulation, or on the other hand the surface may appear as a solid diffuse and encephaloid, hemorrhagic, and edematous tumor with cysts which vary in number and size. In some of the lesser malignant types which are spoken of as giant myxoma, bulky fibro-adenoma, cystosarcoma phyllodes, or Brodie's serocystic sarcoma, the cysts may be quite large with the tumor projecting into and filling cystic spaces with a solid pseudo-papillary type of growth. It is this type of tumor which is of questionable malignancy that accounts for the high percentage of sarcomas in some series of cases. By some writers these are classed as grade I sarcomas, but it is a

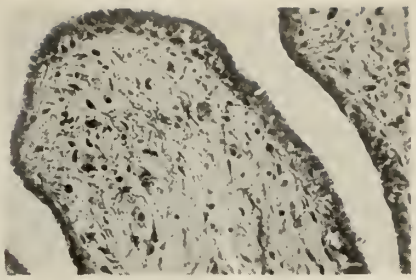

Fig. 1. Case 2. Brodie's serocystic sarcoma. (150x)

debatable question whether these should really be included with a group of otherwise fully malignant tumors. These tumors seldom recur or metastasize if completely removed, and if the tumor retains its original tissue type and structure. The following cases illustrate these large, bulky and relatively benign types of Brodie's serocystic sarcoma:

Report of Cases

Case 1. This patient, Mrs. B. C., aged 68, was seen at the Steiner Clinic July 8, 1929. She stated that 6 years previously she had noticed a small lump in the right breast which steadily increased in size, more rapidly in the past 12 months. Six months ago she injured the breast, and shortly thereafter the tumor broke through the skin. On examination there was a massive nodular tumor of the entire breast with a fungating area 8 cm. in diameter over the inner portion. The clinical diagnosis was Brodie's serocystic sarcoma. On July 9, simple mastectomy was done by Dr. Nicolson. The breast measured 25 cm. in diameter and weighed 9 pounds. The tumor was solid and nodular and no large cysts were found. The capsule of the tumor was intact on the posterior part. There was a slightly papillary gross appearance, but no necrosis or hemorrhage was present except in the ulcerating, fungating portion. Microscopically, the tumor was very fibrous, slightly cellular in some areas with the cells rather uniform in size and shape. No mitoses were seen. There was slight hyalinization and even traces of calcification. A few small cystic ducts were present. The diagnosis was Brodie's sarcoma with little evidence of any actual malignancy, in fact, regressive changes were present. This patient was last seen June 5, 1932, at which time there was no evidence of any recurrence or metastasis.

Case 2. This patient, L. G., was a colored woman, aged 30, seen at the Steiner Clinic, July 24, 1933. She stated that 8 months before she had first noticed a lump in the right breast which grew very rapidly and was quite painful on examination. The right breast was very large, heavy and nodular, with the skin stretched tightly over it. The superficial veins were dilated. On Aug. 10, 1933, radical mastectomy was done. The breast weighed 7 pounds and was entirely involved by the tumor, showing numerous cysts and solid masses, some cysts being smooth-walled and others showing papillary

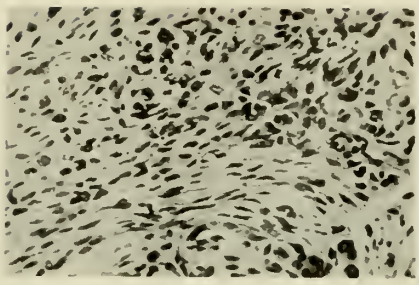

Fig. 2. Case 3. Fibrosarcoma (150x)

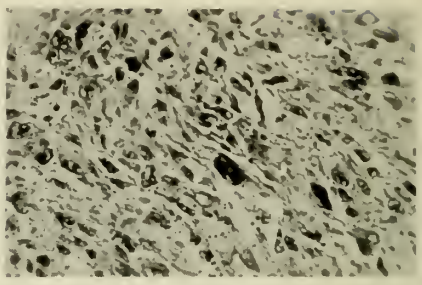

Fig. 3. Case 4. Mixed cell (fibro) sarcoma (150x)

ingrowths. Several axillary nodes were found 2 cm. in diameter and smaller. Microscopically, the tumor was composed of edematous connective tissue of varying cellularity. The cells were of small spindle type with occasional mitoses. There was slight epithelial proliferation in the ducts (Fig. 1). The lymph nodes were hyperplastic, but no metastases were found. The diagnosis of Brodie's serocystic sarcoma was made. This patient died 14 hours after operation, and autopsy was refused.

The origin of mammary sarcoma is obscure. In fact there is less logical explanation for mesoblastic tumors of the breast than there is for the more common epithelial tumors. In attempting to explain epithelial tumors of the breast, we know that there is a complex system of secreting acini and numerous ducts which go through periods of varying activity and quiescence with at times progressive stagnation, cyst formation, papillary growth, epithelial proliferation filling the cysts, becoming atypical and eventually breaking through into the surrounding tissue as fully developed carcinoma. The supporting tissues are passive and only change as a reaction to the epithelial tumor, and may not participate in the tumor process. On the other hand in sarcoma, it is the supporting tissue in or from which the tumor develops primarily, and any mechanical stimulus within the glands or ducts can hardly be held responsible. Complex tumors are fairly common in the breast, and they may remain benign or become fully malignant. Both ectodermal and mesodermal tumors are encountered with one type or other of tissue predominating. They may be clearly mixed or practically pure tumors of one tissue or another. It is believed that one factor in their development is the presence of cell rests, individual perverted cells or foci which lose their growth restraint and proceed to grow as an active neoplasm. Some of these must arise from totipotent cells giving rise to several different types of tissue in the same tumor; other tumors of almost purely single tissue may be explained on the basis of a one-sided development from such a totipotent cell. Metaplasia might account for some sarcomas, for the change from one type of tissue to another is well illustrated in many tumors, as for example the myxomatous and cartilaginous structure in mixed salivary gland tumors.

While the breast is composed of both epithelial and connective tissue structures, the variety of the latter is quite marked, and therefore the types of sarcoma from a histologic standpoint vary greatly. It is believed that many sarcomas of the breast arise in or from long standing benign fibroadenoma, and it is quite true that the mojority of sarcomas of the breast are either adenosarcomas or fibrosarcomas. Various other types of sarcomas have been reported such as neurogenic sarcoma, giant cell sarcoma, liposarcoma, osteo- and chondrosarcoma, lymphosarcoma, myosarcoma, angiosarcoma, and even melanoma. Most of the tumors are classed according to the predominating type of tissue, but any classification based upon cell shape conveys little meaning as to the true nature of the tumors. Fibrosarcoma should be stated as such and not as spindle cell sarcoma. One must admit that sometimes it is impossible to determine absolutely the tissue from which the tumor takes its origin, and we therefore find some tumors classed according to cell type and arrangement rather than true tissue type. Such terms as "perithelial sarcoma" convey a definite impression as to the arrangement of the cells, but do not give any enlightenment as to the origin.

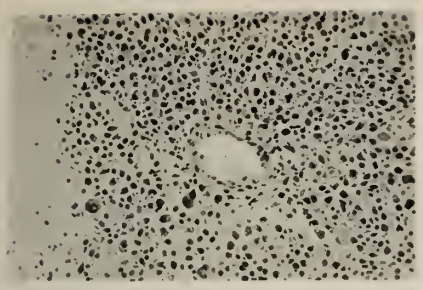

Fig. 4. Case 5. Perithelial sarcoma (100x)

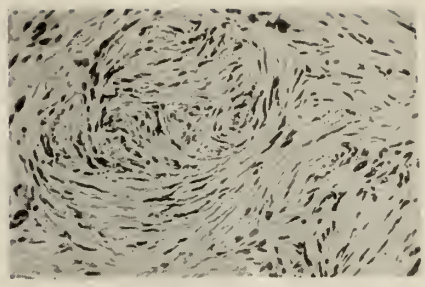

Fig. 5. Case 6. Neurogenic sarcoma (150x)

Likewise "round-cell sarcoma" is a dumping ground for many types of tumors, by no means all sarcomas, which for various reasons are not more definitely classified. One must remember that many embryonal or anaplastic carcinomas are composed of round cells, and in the case of any tumor with the exception of lymphosarcoma, one must be very careful in classing any round-cell tumor as sarcoma. Modified epithelium may give the appearance of a spindle-cell tumor, and spindle-cell carcinomas are frequently erroneously diagnosed as sarcoma. However, one may be more or less justified in using some of these obscure terms in discussing and describing certain cases of sarcoma. It may be that such terms as "giant cell" or "myxo" or "perithelial" sarcoma may indicate changes in similar or identical tumors rather than separate or distinct entities. It is impossible to differentiate the various types of tumors clinically except perhaps the chondrosarcoma and the cystosarcoma of Brodie.

Fibrosarcoma gives the microscopic appearance of a diffuse tumor composed of spindle cells of various sizes which, like the number of cells, vary with the activity and differentiation. In some tumors, cells may be comparatively few and collagen abundant, whereas in others the cells may be extremely numerous, of small size or of various sizes, closely packed and showing numerous mitoses. In this type of tumor giant cells may be present either from fusion of tumor cells or from incomplete cell division, and if these cells are numerous, account for a diagnosis of giant cell or mixed cell sarcoma. These giant cells are true tumor giant cells and must not be confused with the Langhan's giant cells of tuberculosis or the giant cells of epulis or foreign body type. The cell arrangement in fibrosarcoma is usually rather orderly in that the cells and their processes tend to form bundles, strands or fasciculae and there is little peri-vascular arrangement or necrosis. A case illustrating this type is as follows:

This case is an illustration of a definite fibrosarcoma with rather unusual metastases.

Case 3. This was a patient, Mrs. B., 43 years of age, whose past history was essentially negative except for a pelvic operation 10 years ago. On April 25, 1935, a tumor of the breast was removed by Dr. Z. V. Johnston and referred to me for examination. It was a moderately firm, white, encapsulated solid tumor and without necrosis, cysts or hemorrhage. It lacked the translucent appearance of fibro-adenoma, and likewise was not of the chalky, opaque appearance of carcinoma. Microscopically, the tumor was composed of sheets of medium sized spindle-shaped cells in bundles and strands (Fig. 2), with a few normal ducts in some places. Mitoses were rather numerous, and there was some variation in size and shape of the individual cells. The diagnosis was fibrosarcoma probably arising in a previous fibro-adenoma. Upon receipt of my report Dr. Johnston did a radical mastectomy, and at that time there was no evidence of any metastases to nodes, lungs, or bone.

On Jan. 14, 1939, this patient was admitted to the Winship Clinic of Emory University complaining of marked bulging of the right eye with corneal ulcer. The patient was blind in this eye, and was unable to close the lids on account of the exophthalmus. The left eye was normal. Examination showed no recurrence in the scar of the original operation, and the left breast was normal. On Jan. 18, Dr. Calhoun did a biopsy and enucleation, which showed a tumor of medium and large spindle cells with numerous mitoses. There was slight tendency for whorl formation and some collagen production. Traces of necrosis were present. The diagnosis was fibrosarcoma, metastasis from the tumor of the breast removed nearly four years before. In February, Dr. Scarborough gave this patient 4200 r deep therapy x-ray to two portals over the eye which was followed by marked regression. However, in November, there was an apparent increase in the orbital growth,

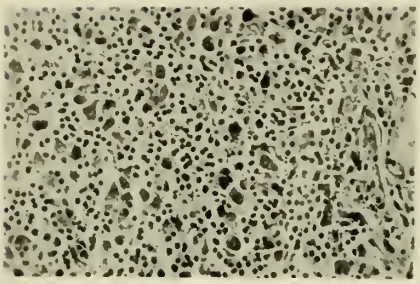

Fig. 6. Case 8. Hodgkin's (?); lymphosarcoma (?) peculiar mastitis (?) (150x)

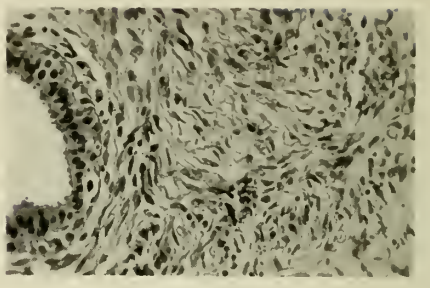

Fig. 7. Case 9. Adenosarcoma 150x)

and in February, 1940, the mass was protruding from the orbit with involvement of the temporal portion of the orbital bone. The patient died March 28, 1940. There was no autopsy, so metastases in other locations remain undetermined.

Illustrating the giant, polymorphous or mixed cell type, the following case is presented:

Case 4. This patient was a young colored girl, M. B., age not given. She was operated on July 27, 1926, by Dr. McRae. The breast was large, very firm, and was almost entirely replaced by a large, well-encapsulated tumor. The tumor was slightly lobulated, whitish in appearance with large areas of hemorrhage. The entire tumor was of brain-like consistency and extremely friable. Microscopically, the tumor was composed of large and small, spindle and polyhedral cells with acidophilic cystoplasm and large nuclei (Fig. 3). Mononuclear giant cells were prominent, and mitoses were numerous. Foreign body giant cells were lacking. There was no definite arrangement of the cells and little adult connective tissue was present. There was considerable vascularity and hemorrhage but no necrosis. No glandular structure was seen. The diagnosis was sarcoma of mixed and giant cell type, probably fibrogenic in origin. The patient died the following day and autopsy was refused.

Perithelial sarcoma is an obscure type of tumor and yet has been rather frequently reported. As the name implies the cells show a collection around or a radiation from blood vessels. However much of this appearance is due to necrosis of the cells some distance away, leaving those nearest the vessels active and well nourished. It does not appear that these cells are actually derived from perithelial cells about blood vessels, and they do not present the usual or expected characteristics of vascular peri- or endothelium. I am inclined to think, and I am not alone in this view, that this type of tumor represents a rapidly growing one with some of the blood supply cut off from parts of the tumor causing necrosis and leaving the perithelial formation so prominent. An illustrative case follows:

Case 5. This patient, Mrs. H. B., was 42 years of age when seen at the Steiner Clinic in April, 1934. She stated that two weeks before she accidentally found a small painless tumor in the upper, outer part of the right breast. This nodule measured 2 cm. in diameter and was located under the skin above the nipple. It was not fixed to either skin or muscle. A few soft nodes were present in the axilla. The diagnosis was fibroadenoma or carcinoma, and on May 19, the tumor was locally removed for diagnosis followed by radical operation. The tumor was well circumscribed and showed a thick capsule. The cut surface was solid and opaque. Microscopic examination showed numerous thin walled vessels with the actively growing tumor cells surrounding and radiating from these vessels (Fig. 4). The cells some distance away were completely necrotic, and there were no glands or ducts. The gross appearance in this case was that of carcinoma, while the microscopic structure showed a perithelial sarcoma. This patient, following operation, received 1800 r deep therapy x-ray. On July 19, 1939, there was no evidence of disease, over five years after operation.

Neurofibroma and neurogenic sarcoma have been reported in several instances, and the occurrence of such tumors is logical and not difficult to explain, for the breast is rather richly supplied with nerves from which these tumors could arise. Their structure is the same as neurogenic tumors elsewhere with the whorling, twisting fibres and masses. Even nerve fibers may be found within the tumor. As in other tumors, the malignancy varies directly with the cellularity. A case of low grade neurogenic sarcoma follows:

Case 6. This patient, Mrs. P., 45 years of age, was seen at the Steiner Clinic in April, 1932. For years the patient had had gallbladder "trouble", and had used plasters of some sort over the gallbladder area which blistered the skin of the upper abdomen and lower chest. The gallbladder was removed in 1931. One year prior to admission she noticed a small red mass near the scar of the blister in the lower part of the breast. This mass was somewhat tender and on examination appeared red

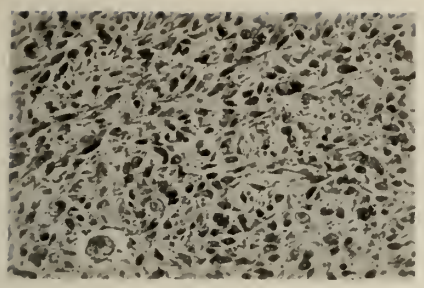

Fig. 8. Case 11. Chondrosarcoma; cellular portion (150x)

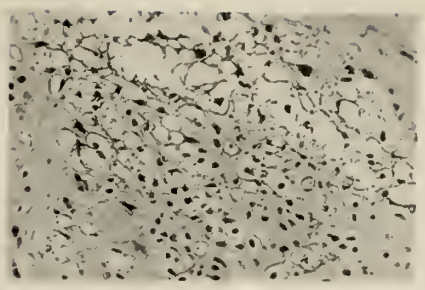

Fig. 9. Case 11. Chondrosarcoma; cartilaginous portion (150x)

and rough. It measured 3 cm. in diameter and was fixed to the skin. On April 21, 1932, the tumor was removed by Dr. Hair. It was very firm and well rounded, with the cut surface showing a white structure of whorling and twisting fibrous tissue without necrosis or hemorrhage. The microscopic examination showed this whorling formation of elongated spindle cells with long fibrils (Fig. 5). The diagnosis was neurogenic sarcoma of low malignancy. It has been impossible to trace this patient since that time.

Myosarcoma has been reported, leiomyosarcoma probably arising from the smooth muscle fibers in and under the skin or about ducts and vessels, and rhabdomyosarcoma from the pectoral muscle underneath, the latter not being a true mammary tumor. Likewise the breast contains a large amount of fat and simple lipomas are rather frequently observed and just as frequently overlooked. This type of tissue gives rise to liposarcoma with its proliferating young fat cells. One such case appears in this series. As in many of these liposarcomas, the actual fat content varies and can not be determined unless specific staining reactions are used. Tumors of fascial type from the pectoral fascia are recorded. A number of cases of melanoma of the breast have been reported, but I do not believe that these are true mammary tumors. They are more clearly tumors of the skin of the breast, and for this reason three cases of melanoma are omitted from this series.

The occurrence of lymphosarcoma and Hodgkin's disease are questionable in spite of reports of such tumors. Lymphoid tissue is not found in the normal breast nor in the skin over it.[1 5]. It is probable that a malignant tumor of lymphoid tissue found in the breast is really a part of or a secondary deposit from a tumor of that character elsewhere. Even leukemia may give deposits of round cells in the breast as part of the generalized disease. Attention must be called again to the histologic similarity between the round cells of lymphoid or myeloid origin and the round cells of embryonal carcinoma; nevertheless, in this series, there is one case of an undifferentiated round cell tumor, and one which closely resembles Hodgkin's disease.

Case 7. This patient, Mrs. R., aged 28, was admitted to the Steiner Clinic, Sept. 6, 1926, stating at that time that three months before she had noticed a small lump in the left breast which increased rapidly in size during this interval. She also complained of some pain and numbness in both legs. Examination showed a mass 8 cm. in diameter in the left breast which was not fixed to the chest wall. No nodes were palpated. There was also an indefinite tumor in the pelvis to the left of the mid-line apparently attached to the bony structures. X-ray examination showed no evidence of metastases. A simple mastectomy was done on September 9, and the breast showed a well-rounded and apparently encapsulated tumor 9 cm. in diameter. The mass was firm, and the outer part was white, slightly opaque, while the central half of the tumor was hemorrhagic. Microscopically, the tumor was entirely undifferentiated, consisting of sheets of small rounded cells with numerous mitoses and showing also masses of tumor cells within blood vessels. This patient received x-ray therapy following operation and has not been heard of since dismissal from the hospital. The origin of this tumor is not particularly clear. The presence of the mass in the pelvis is disturbing, yet the breast tumor does not suggest an ovarian origin. The marked malignancy of the breast tumor and definite invasion of blood vessels could easily account for a metastasis in the pelvic region.

Another case of obscure type is the following:

Case 8. Mrs. K., aged 41, was first seen at the Steiner Clinic, Feb. 8, 1934, stating that for 18 years she had had some pain and tenderness in the right breast, for which massage and mustard plasters had been used. A short while before admission, a lump appeared which gradually increased in size without corresponding increase in her discomfort. There was a firm and movable tumor in the lower part of the right breast with a slight dimpling of the skin. The clinical diagnosis was fibroadenoma or sarcoma. A simple mastectomy was done by

Dr. Berman on Feb. 13, 1934. The tumor was elongated, 5 by 3 by 3 cm. cutting easily and bulging above the surrounding tissue. The cut surface was more opaque than the usual fibro-adenoma. Frozen section examination was done, and a diagnosis of a malignant tumor suggestive of lymphosarcoma or Hodgkin given. Paraffin sections of fixed tissue showed very few mammary acini and ducts, all of which were entirely passive. The entire mass was composed of loosely arranged lymphocytes and scattered medium sized polyhedral shaped mononuclear and multinucleated cells. (Fig. 6). An occasional plasma cell was seen. There was a little fine reticulum, but no massive fibrosis or necrosis. To me, this tumor represents an origin from lymphoid or reticular structure, but the final diagnosis has not yet been made. Dr. Ewing who also examined the sections stated that the tumor was certainly not carcinoma of any known type, and that there were suggestions of lymphosarcoma and lympho-epithelioma, with one area of indefinite reticulum cells, but that he believed that this might be an atypical type of plasma cell mastitis. This case is being followed very closely and when last seen in June, 1939, there was no evidence of disease.

Adenosarcoma usually presents a well rounded appearance derived from the original fibro-adenoma. When malignancy develops in fibro-adenomas, it is usually sarcoma, but in rare instances the tumor in becoming malignant may become carcinomatous. I have had the opportunity recently of observing one such case. The structure of adenosarcoma is that of a more or less dense and cellular fibrous stroma which forms the bulk of the tumor. There is a varying amount of edema but usually no necrosis. Glands vary in number and size but few actual cysts are seen. There is some glandular proliferation, but the glands are fairly well formed, and the epithelial lining participates to only a slight degree in the actual tumor process.

Case 9. This was a young woman, Miss H., aged 27, who was seen at the Steiner Clinic, Jan. 20, 1933, complaining of a mass in the right breast which had been present for 4 months. This tumor had slowly grown and was slightly tender. The mass was discovered accidentally in the beginning. On examination there was a nodular, firm tumor which was not attached to the skin or muscle. The superficial vessels were slightly dilated. The diagnosis was fibroma (?) On Feb. 2, 1933, the tumor was excised by Dr. Elkin for diagnosis. The mass was lobulated and elongated, measuring 8 by 4 cm. There was a definite capsule and the cut surface was white, glistening, and without cysts or necrosis. Microscopically, the tissue was quite cellular with the cells appearing in bands and bundles of medium sized spindle cells with occasional mitoses (Fig. 7). Several ducts appeared in the tumor with some proliferation of the lining epithelium. The diagnosis was adenosarcoma of low malignancy. Following operation the patient received 3200 r x-ray. In January, 1934, there was a small recurrence which was more fibrous and contained less glandular structure than the original tumor. When last seen there was no evidence of further recurrence, although there has been no recent follow-up.

It should be remembered that in a few instances carcinoma and sarcoma may occur in the breast as separate tumors or as a combined carcinosarcoma. Helwig[10] reported a case of carcinoma and giant cell sarcoma occurring in the same breast, with metastases and recurrences showing both structures. He believed the sarcoma was a metaplastic process. A somewhat similar case appears in this series:

Case 10. Mrs. M. D., aged 67, was seen at the Steiner Clinic, October 24, 1939. Twenty-seven years ago she noticed a small lump in the left breast. After five years, during which time the tumor apparently remained stationary, there began a slight discharge from the nipple. Eighteen months ago the mass began to enlarge and became somewhat tender. One week ago, a bloody discharge was noticed. On examination, all of the breast was apparently involved by a tumor 18 by 13 cm. The greater portion was hard with some cystic areas. There was a slightly bluish color and the skin was stretched very tightly. The nipple was retracted. No nodes were palpated. The clinical diagnosis was Brodie's serocystic sarcoma. Simple mastectomy was done by Dr. Glenn. The tumor was very nodular, and there were cysts as large as 8 cm. in diameter, some filled with dense papillary masses. Other nodules were solid, white and partly necrotic. The microscopic examination showed a wide variety of structures with much necrosis. There were several benign papillomas, and other parts were cellular with sheets of cells of all sizes and shapes, with giant cells of tumor and foreign body type. Some perithelial formation was present, and small groups of detached cells were found in sclerotic connective tissue. No metastases were found. The diagnosis was sarcoma and carcinoma, the latter developing from intracystic papillomas. When last seen in February, 1940, there was no evidence of disease.

Myxochondrosarcoma is reported in several series of cases, and we have found one such case. The occurrence of cartilage and bone is unusual in the human breast, but these features are common in tumors of the dog. Chondromas are occasionally seen and with marked edema or with degeneration, give the appearance of myxomatous change. Occasionally adult bone may be found. Malignant tumors of similar tissue may occur in the human breast as a teratoid type as previously stated, with the sarcomatous pic-

ture showing various stages of malignant cartilaginous and osteoid structures. The following case illustrates such a tumor:

Case 11. This patient, Mrs. L., was 67 years of age, and seen at the Steiner Clinic in March, 1929. She stated that 28 years before there was a lump at the inner side of the breast which was hard and fixed. It slowly enlarged, and after 20 years was removed. A recurrence in the scar was removed one year later, and a third tumor was removed 6 months prior to admission. On examination the left breast was smaller than the right due to partial removal at the previous operations. There was a hard spherical mass 4 cm. in diameter in the breast, but no axillary nodes were found. X-ray examination of the chest showed multiple metastases already present. The patient died Dec. 19, 1930. The breast was removed after death, and showed a large discolored, ulcerated, fungating tumor involving the entire breast. There was no apparent capsule and cartilage could be recognized on gross examination. The microscopic appearance of the tumor was that of a tumor of polyhedral and spindle shaped cells with numerous mitoses (Fig. 8), the cells differentiating into atypical cartilage (Fig. 9), but no bone was found nor were there any traces of mammary tissue. The diagnosis was chondrosarcoma. On account of the original location of the tumor near the edge of the sternum and over the ribs, one might suspect that this was a primary tumor of bone instead of the breast. However, when the tumor was examined after death, it was apparently limited to the breast itself.

Metastases in sarcoma occur somewhat later than in carcinoma, and in fact many fail to metastasize at any time. Metastases occur chiefly by the blood stream and the regional lymph-nodes are very seldom involved. Local recurrence frequently happens when the tumor is incompletely removed as would naturally be expected, and recurrence may be of increasing malignancy. From this it would seem that the prognosis is somewhat better in sarcoma than in carcinoma as many believe,[4] for these tumors are easily completely removed early in the disease. As has been shown here, they remain localized for almost an unbelievable length of time, and for this reason, and in addition the lack of lymphatic metastases, some recommend mastectomy external to the pectoral fascia, without removing the axillary nodes. However, local recurrence has followed in a great many cases in which simple excision has been performed, and in advanced or fully developed sarcoma the prognosis is really poor. Radiation has little effect except in the very cellular, undifferentiated types.[4]

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THE DIFFERENTIAL DIAGNOSIS OF JAUNDICE AND CAROTINEMIA

Report of Case

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The presence of abnormal pigmentation of the skin in a given patient suggests an interesting group of diseases. Jaundice, Addison's disease, pernicious anemia, pellagra, hemochromatosis, and carotinemia (xanthosis) may be mentioned as examples of this group. The recognition of some of these conditions is not difficult. The differentiation between jaundice and carotinemia may present considerable difficulty, especially when the presenting complaints are nausea, vomiting, and upper abdominal pain. Boeck and Yater[1] reported that six of twelve non-diabetic patients presenting such complaints were investigated for cholecystitis before the correct diagnosis of carotinemia was confirmed.

The development of a canary-yellow or light orange pigmentation of the skin following the consumption of a diet composed of fruits, vegetables, butter, eggs, and other foods rich in yellow lipochrome pigments was observed in diabetic patients by Von Noordin in 1904[1]. This was confirmed by other observers. Moro, in 1908[1], described the same type of pigmentation in normal infants when carrots were added to the diet.

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The original description in English, and the initial use of the descriptive name, carotinemia, is attributed to Hess and Myers[2] in 1919.

Subsequent investigations by many workers have shown the true chemical nature of the pigment. Carotine is a highly unsaturated hydrocarbon, present in many foods. Its absorption depends upon the presence of fat in the diet, and the presence of bile acids. It is absorbed as a water soluble diffusable complex with bile salts. There is probably a colloidal absorption of carotine by albumin, and a colloid solution of the albumin in plasma. It has been shown that the carotine is converted to vitamin A. This conversion probably takes place in the liver. Excess carotine is destroyed or excreted. The chief means of excretion is apparently through the sweat. When there is an unusually heavy excretion, there is a reabsorption of the carotine by the horny layer of the skin, with some concentration in the sebaceous glands. This accounts for the deepened pigmentation in the nasolabial folds where the skin is rich in sebaceous glands, and in the soles and palms, where the cornified layers of the skin are thicker.

Ralli, et. al.,[3] have advanced the theory that in diabetes the liver is unable to convert carotine to vitamin A in normal amounts. The resulting increased carotine content of the liver interferes with the absorption of carotine from the blood. They substantiated this theory by demonstrating an increased amount of carotine in the liver of a diabetic patient who had shown carotinemia.

Carotinemia is of clinical interest because it may be confused with true jaundice and thus influence the management of the clinical investigation. The laboratory confirmation of the diagnosis may be obtained through the determination of the lipochrome-index, which involves the petroleum-ether extraction of the pigment, and the colorimetric comparison with a potassium dichromate standard. A clinical diagnosis of carotinemia may be made without the aid of laboratory methods, and then confirmed by the use of more simple laboratory procedures. The following case was a typical example of carotinemia in which a tentative diagnosis of obstructive jaundice had been made. A clinical diagnosis of carotinemia was made, and the diagnosis substantiated by simple laboratory procedures.

Report of Case

Mrs. W. H. A., a widow, aged 76, was seen in consultation on Oct. 16, 1939, for a consideration of the cause of her obstructive jaundice. She had never been robust. There had been no significant illness until about one year before, when she sustained some type of cerebral vascular accident. She had been partially confined to bed since, and there was failure of memory, and some mental confusion. The details of her illness were vaguely described.

There had been recurrent episodes of vomiting, occurring shortly after meals, for several months. These incidents were of several days' duration, and were most likely to occur when she was nervous, excited, or unhappy. About one week before, she had developed pain in the left upper quadrant of the abdomen, radiating to the right. There was considerable nausea and vomiting. The pain was described as constant, severe, and sharp, but no medication for relief had been required. A yellow pigmentation of the skin had been observed by her physician, following the onset of the pain, but neither the patient nor her attendant had noted it previously. The urine was said to have been darker than normal; the feces lighter. On the basis of these factors, a diagnosis of obstructive jaundice had been made. The pain had continued, had varied in location, and had become inconstant and fleeting.

The patient was a slight, emaciated woman, presenting no evidence of distress. There was mild mental confusion. By artificial light, a diffuse yellow pigmentation of the skin was noted. The blood pressure was 184 systolic, and 80 diastolic. The pulse rate was 96 per minute. The temperature was normal. The retinal arteries were narrowed and sclerotic. There was complete adentia, and the tongue was slightly coated. Examination of the trunk showed kyphosis of the spine with fixation of the chest wall. The breath sounds were distant. There was no evidence of significant cardiac abnormality. The abdomen was scaphoid in contour. There was no abdominal tenderness, none of the viscera was palpable, and there were no masses. The peripheral arteries were considerably thickened.

The patient was advised to enter a hospital for further study. On the following day, a physical examination under more favorable lighting revealed several points of interest. The generalized icterus-like pigmentation of the skin had a peculiar lemon-yellow tint, and the scleras were not tinted. There was an accentuation of the pigmentation in the callous areas of the foot, and these areas showed a translucent orange tint. The hands showed unusually little callous formation. When questioned further about her diet it was learned that it had been her custom to eat two medium sized raw carrots daily for about one year, because this one item

of food had never caused distress. On the basis of these findings, diagnoses of carotinemia, arteriosclerosis, emphysema, and mild senile dementia were made.

Laboratory observation on the day of admission confirmed the diagnosis of carotinemia. The urine contained no bile, and gave a faintly positive test for urobilinogen. There was no anemia or leukocytosis, and the differential count was normal. The feces contained urobilin. The icterus index was 23.5 per cent, but the quantitative van den Bergh test showed a level of only 0.8 milligrams of bilirubin per 100 cubic centimeters of serum.

Roentgenologic examination of the gastro-intestinal tract showed no abnormality except for transient spasm, mass contraction, and smoothing of the haustrations of the colon. Following the use of a double oral dose of sodium tetraiodophenolphthalein the gallbladder was well visualized, and there was complete emptying after a meal.

She remained in the hospital until Nov. 7, 1939. No specific therapy was employed. The yellow pigmentation gradually disappeared before the time of her discharge. She was seen on several later occasions, but no further pigmentation was observed.

Comment

Of the various details noted in this case, the following may be mentioned as leading to the correct diagnosis. The peculiar lemon-yellow color of the skin, with the concentrations of the pigmentation as described, is characteristic. The clearness of the scleras in contrast should suggest the diagnosis. The history of the intake of large amounts of pigment-containing foods is also helpful in confirming the diagnosis. Greene and Blackford[5] have pointed out that this condition is usually observed in individuals falling into the group of neuroses, and that this is the usual factor responsible for the selection of the pigment-containing diet.

From the laboratory standpoint, the presence of apparent jaundice, with an absence of bile in the urine, and the presence of an increased icterus index with a normal level of bilirubin in the blood confirms the diagnosis.

One further point of interest may be mentioned. Curtis and Ballmer[6] have shown that the use of liquid petrolatum interfered with the transport of carotine across the epithelium of the intestine. If desired, the use of this preparation in doses of 20 to 30 cubic centimeters before each meal would lower the blood concentration of carotine, and perhaps allow for a more

(Continued on page 255)

PRESIDENT'S MESSAGE

In this, my final message, I would like to thank all members of the Medical Association of Georgia for their cordial cooperation during the past year, for their encouragement and for their loyalty.

Especially would I like to thank the genial secretary, Dr. Edgar Shanks, and the members of the various committees who have done the work of the Association. It has been a real pleasure to have met and worked with the various committees.

While, naturally, we have not attained all of the objectives we planned a year ago, I feel that we have made some progress. Always in great organizations such as the Medical Association of Georgia progress is and should be slow. To me it has been an exceedingly smooth and pleasant year. My visits to the various district medical societies have been a pleasure and an inspiration.

From the recent verdict delivered in the trial of the American Medical Association, one would think that the verdict was reached through confusion as to what the Medical Association is and what it stands for.

It seems to me that the foremost thing needed now is to give to organized medicine a personality so that the public will recognize it for what it really is: a protector of the public against those agencies that would lower the standards of medical care.

Our incoming President, Dr. Allen H. Bunce, by his long years of training as Secretary of this Association, as Vice-Speaker of the House of Delegates of the American Medical Association, and finally as Trustee of the national organization, is just the man to carry forward this work so that medicine may attain new heights in keeping with its glorious past.

J. C. Patterson, M.D.

The Journal *would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.

MAY, 1941

TRICHINOSIS

One-sixth of the population of Washington, D. C., carries the trichinosis parasite a four-year study by the Zoology Division of the United States Public Health Service has disclosed.

Presence of the trichinosis organism in the body does not mean, however, that a person actually has the disease, the U. S. Public Health Service emphasized.

Disclosure of the unexpectedly high incidence of the parasite followed examination of 3,000 specimens of postmortem material provided by 10 Washington hospitals, 4 U. S. Naval hospitals and 2 U. S. Marine hospitals in eastern seaboard cities.

Of the 2,330 specimens obtained from Washington hospitals, 362 or 15.5 per cent, were infested with trichinae, the organism causing trichinosis. The remaining 670 specimens, which came from service hospitals in other cities, were 18.8 per cent infested.

Washington was selected as the chief source of material because of the cosmopolitan nature of its population. Gallinger, George Washington, Garfield, Georgetown, Mt. Alto, U. S. Naval, Walter Reed, Freedmen's, St. Elizabeths and Children's hospitals cooperated.

The percentage of individuals carrying the trichinosis organism in the 3,000 specimens is believed to indicate the extent of infestation to be found in similar population groups in other parts of the United States. Trichinosis infestation is believed to be less in rural areas and a survey of these areas is now being made by the Zoology Division of the National Institute of Health.

Despite popular opinion, Public Health Service zoologists believe the practice of feeding raw cabbage to hogs is more to blame for trichinosis in humans than eating improperly cooked pork.

It is believed that if all hogs were cornfed, the disease could be much more scientifically controlled than in placing full reliance on thorough cooking of pork for human consumption.

OFFICIAL CALL

To the Officers, Fellows and Members of the American Medical Association:

The ninety-second annual session of the American Medical Association will be held in Cleveland, Ohio, from Monday, June the second, to Friday, June the sixth, Nineteen hundred and forty-one.

The House of Delegates will convene on Monday, June the second.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, June the third at 8 P. M.

The various sections of the Scientific Assembly will meet Wednesday, June the fourth, at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

NATHAN B. VAN ETTEN, President
H. H. SHOULDERS,
Speaker, House of Delegates

Attest:
OLIN WEST, Secretary,
Chicago, Illinois, March the fifteenth.

House of Delegates

The House of Delegates will convene at 10:00 A. M. on Monday, June 2, 1941, in the Euclid Ball Room of the Hotel Statler, Euclid Avenue at East Twelfth Street.

REPRESENTATION

The appointment of delegates made at the New York Session of 1940 *entitles your State Association to three delegates for* 1941-42-43.

"A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve.

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half, as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States Army, United States Navy, and United States Public Health Service shall hold office for two years."
—Chap. I, Secs. 1 and 2, By-Laws.

RULES FOR THE GUIDANCE OF THE COMMITTEE ON CREDENTIALS

Adopted by the House of Delegates at Atlantic City, N. J., June 6, 1912

1. Credentials shall be of two parts. The first part shall be sent to the office of the Secretary of the American Medical Association by the secretary of the constituent association, not later than seven days prior to the first day of the first meeting of the House of Delegates, and shall be a list of delegates and alternates for that association. The constituent associations shall designate an alternate for each delegate, who may take the pledge of the delegate when authorized to do so by said delegate in writing. In the absence of such authority, any alternate who has been duly chosen by the constituent association may be seated in place of any delegate who is unable to attend, provided he presents proper official authority from said association. A certificate signed by the president or secretary of the constituent association shall be deemed legal authority (as amended June 7, 1921).

2. Each delegate shall be furnished with a credential by the secretary of the association by which he is elected on a prescribed form furnished by the Secretary of the American Medical Association, which shall give the date and term for which he was elected and who was elected to act as alternate for him in case of his inability.

3. A delegate, on presenting himself to the Committee on Credentials, may be seated even though he may not present part 2 of his credential, provided he is properly identified as the delegate and he can show written evidence that he is empowered by his delegate to act for him, except as provided for in Section 1 as amended (as amended June 7, 1921).

5. When a constituent state association reports that one of its elected delegates and his elected alternate are both unable to attend a specified annual session of the American Medical Association, the constituted authority of said constituent state association may fill the vacancies caused by the absence of both an elected delegate and his elected alternate, and such a substitute delegate or his substitute alternate who presents proper credentials signed by the president and secretary of said constituent state association shall be eligible to regular membership in the House of Delegates of the American Medical Association in such a specified session (as adopted, May 12, 1932).

Scientific Assembly

The Opening General Meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, June 3, 1941, at 8:00. The Sections will meet on Wednesday, Thursday and Friday, June 4, 5 and 6.

Convening at 9:00 A. M., the Sections on Practice of Medicine; Obstetrics and Gynecology; Laryngology, Otology and Rhinology; Pathology and Physiology; Orthopedic Surgery; Urology; Preventive and Industrial Medicine and Public Health; Anesthesiology.

Convening at 2:00 P. M., the Sections on Surgery, General and Abdominal; Ophthalmology; Pediatrics; Pharmacology and Therapeutics; Nervous and Mental Diseases; Dermatology and Syphilology; Gastro-Enterology and Proctology; Radiology.

Registration Department

The Registration Department will be open from 8:30 A. M. until 5:30 P. M. on Monday, Tuesday, Wednesday and Thursday, June 2, 3, 4 and 5, and from 8:30 A. M. to 12:00 Noon on Friday, June 6, 1941.

MEDICAL SCHOOL REQUIREMENTS QUESTIONED

Are the medical schools of this country emphasizing technical qualifications of students who seek admission to the exclusion of equally important considerations?

This question was raised recently by Dr. Irving S. Cutter, Dean of the Northwestern University Medical School, when he appeared before the Thirty-Sixth Annual Congress on Medical Education and Licensure. Dr. Cutter's address* should be read in its entirety, but his views on the attributes which medical students should possess are of special interest. He says:

"I would place character, then, first among those ancillary yet fundamental considerations for admission, and there are many ways to measure this vital endowment. Heredity may be studied with profit. By means of personal interviews, using interested alumni and other available sources including upper classmen from the same school or vicinity, the candidate's background can be envisioned with accuracy. Then too the lad's reactions toward his fellow students in prep school and college and his talents for leadership will afford many hints. Inquire closely into his motives for entering medicine. What are the actuating and directing forces? The suggestion that he submit a 500-word autobiography may be helpful.

"Next in importance is an intense humanity which must be ingrained—second nature. The unfeeling, indifferent expert possessed of every refinement of skill rates about 10 per cent of par as a counselor when some member of the family is ill. For most of us sickness is an emotional experience, and as a rule we are unable to dissociate real interest and effective performance. Not long ago on a visit to a hamlet of a few thousand population I was cheered immeasurably by remarks which I heard on every hand to the effect that 'Dr. Blank is the most valuable and outstanding citizen of our community.' This prompts the rather bold assertion that the health of every locality would be enhanced by the presence of a generous-hearted doctor. He may not know quite as much as his city colleagues, the specialists, but he is faithful in guarding the welfare of his patients; his attention to their ills is so unremitting that disaster comes but rarely. Furthermore, he is the

*Federation Bulletin, February, 1941.

first to call for help when the occasion arises. We cannot read without a thrill Ian Maclaren's story of old Dr. MacLure of Drumtochty, who brought the great London surgeon to save the life of Annie Mitchell. What a notable physician John Keats would have made had not tuberculosis cut him off on the threshold of life and had his urge for medicine held through the years. Deeply imbued with an enduring affection for his fellow man, the author of the Eve of St. Agnes and the Ode to a Nightingale would have rendered a priceless service. But, some one may say, 'Of what use is a nightingale anyway? It would never take a prize at a poultry show!' Therein lies the crux of the whole matter. We must seek and admit to our classes only those students who are capable of understanding and appreciating the doubts and fears that beset the sick.

"Next I would suggest that the applicant shall be possessed of certain cultural instincts. Only the necromancy of a chemical laboratory can transform a sow's ear into a silk purse. Our classrooms as yet are not adept at working miracles. However, the habit of reading good books plus an acquaintance with the world's literature, art and music does something to a man that makes him a better physician. Our demand for a broad intellectual outlook requires that our teachers shall live up to and exemplify the best traditions of scholarship. We lost much with the passing of the old-time lecturer whose discourse was a model of diction, glowing with imagery. He had the power to illumine an otherwise dry subject with interest and color.

"In addition to good mental pabulum our neophyte must possess the ability to think logically. After all, diagnosis is little more than a practical exercise in logic. It is the lack of this accomplishment that leads to scatterbrained incompetence, so destructive to lay confidence. Some possess it; others do not. It is our business to select those who do. A brief undergraduate course in this subject would be of value.

"Personality more often than not reflects the man and in his smile and demeanor we read his thoughts. Charlatans may cultivate the form but not the substance. Too much satire has been directed toward 'a good bedside manner. It was Du Maurier's cartoon in *Punch* of March 15, 1884, that first called forth this phrase. The legend read: 'What sort of a doctor is he?' The reply was, 'Well, I don't know much about his ability; but he's got a very good bedside manner.' The attributes of a gentleman reflect themselves in conduct and we all agree that there is no excuse for the occasional blunt, even brutal, approach to those who are in pain. Our candidate must be blessed with those traits of heart and mind which will lead his patients to the certain knowledge that he is personally concerned and that he will leave no stone unturned for their recovery.

"In selecting our quality quota we must envision the market. What is the objective of medical training? Is it for service in pure science, research and investigation? Is it for medical practice, general or special? Certainly the assumption is sound that it is for all of these, and perhaps more, including the broader aspects of civic affairs in which a large majority of our colleagues should participate. At most, a small percentage of all who enter as freshmen will devote themselves solely to investigation, to the exclusion of contact with patients. By far the larger number will engage in practice, alert to new discoveries. From the vast panorama of clinical material which comes within their purview there will emerge in the future, as in the past, useful and far-reaching observations. A goodly proportion will carry into the field the habits of the laboratory."

Students now beginning their medical training will serve a much more enlightened public than did the practitioners of the past. Medical organizations, official and volunteer health agencies are energetically endeavoring to inform the people in all matters pertaining to their health. In addition, there has been a growing interest in medicine which is stripping it of its mystery. As a result, the average person will be much better able to judge the qualities which make a good physician. Dr. Cutter's observations are therefore timely and should receive the thoughtful attention they deserve.

—Medical Annals of the District of Columbia.

COUNTIES REPORTING FOR 1941

Habersham County Medical Society

The Habersham County Medical Society announces the following officers for 1941:

President—C. M. Sharp, Alto
Vice President—C. T. Hardman, Tallulah Falls
Secretary-Treasurer—D. H. Garrison, Clarkesville
Delegate—W. H. Garrison, Clarkesville
Alternate Delegate—D. H. Garrison, Clarkesville

Laurens County Medical Society

The Laurens County Medical Society announces the following officers for 1941:

President—A. T. Coleman, Dublin
Vice President—C. G. Moye, Brewton
Secretary-Treasurer—O. H. Cheek, Dublin
Delegate—R. G. Ferrell, Jr., Dublin

Clayton-Fayette Counties Medical Society

The Clayton-Fayette Counties Medical Society announces the following officers for 1941:

President—J. R. Wallis, Lovejoy
Vice President—Y. R. Coleman, Jonesboro
Secretary-Treasurer—T. J. Busey, Fayetteville
Delegate—J. R. Wallis, Lovejoy

Montgomery County Medical Society

The Montgomery County Medical Society announces the following officers for 1941:

President—W. M. Moses, Uvalda
Vice President—J. E. Hunt, Mt. Vernon
Secretary-Treasurer—J. W. Palmer, Ailey
Delegate—H. C. Sharpe, Alston

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
Executive Secretary—Durice Dickerson, R.N., Atlanta

131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

VOCATIONAL AND PROFESSIONAL GUIDANCE PROGRAM FOR NURSES

Durice Dickerson, R.N.
Atlanta

The Joint Information Committee of the three State Nursing Organizations is sponsoring an intensive program in vocational as well as professional guidance this year. Six hundred vocational guidance folders are being assembled at State Headquarters and one will be placed in the vocational department of each high school and college in Georgia. The following is a tentative table of contents for the vocational guidance folders. This material is also available for speakers on Nursing and Nursing Education:

Contents

1. Definitions:
   a. Professional Nursing.
   b. The Professional Nurse.
   c. What Should a Professional Nurse Know and Be Able to Do?
2. Pamphlets—"Nursing and How to Prepare for It" and "Nursing, a Profession for the College Graduate."
3. a. A Recommended Program for a High School Student Who Plans to Prepare for the Nursing Course.
   b. Suggested Curriculum for Pre-Nursing Education. (Copied from the General Catalog of University of Georgia.)
4. Minimum Requirements for Accredited Schools of Nursing, from Georgia State Board of Examiners of Nurses.
5. List of Accredited Schools of Nursing in Georgia.
6. Reading List of Books on Nursing for High School Students.
7. Law Governing the Practice of Nursing in Georgia.
8. Suggested Lecture Outline and Reference List for Speakers on Nursing Education and Nursing as a Profession.
9. Illustrations of Fields of Nursing Services.
10. Student Aid: Scholarships and Loan Funds.
11. How to Enter the Field of Public Health Nursing.
12. Minimum Qualifications for those appointed to positions in Public Health Nursing.
13. Requirements for Enrollment in the American Red Cross Nursing Service.
14. Georgia Relationship Chart of Nursing Organizations.
15. Map of Georgia, Showing Georgia State Nurses' Association District Territories.
16. Nursing and the Registered Nurse.
17. Safe Nursing Care and Where to Ask for It.
18. Wanted a Real Nurse—an R.N.
19. The American Nurses' Association and *you.*
20. Information on the Official Magazines of the Nursing Profession:
    a. The American Journal of Nursing.
    b. Public Health Nursing.
21. Publications Lists from:
    a. American Nurses' Association.
    b. National League of Nursing Education.
    c. National Organization for Public Health Nursing.
22. Reading List on Fields in Modern Nursing.
23. List of Secretaries of State Board of Examiners of Nurses.
24. List of Officers and Addresses of the three State Nursing Organizations.

Professional guidance is a paramount part of the program. On May 16 and 17, 1941, the Fourth annual "Open House" entertainment for the 1941 graduates of the accredited schools of nursing in Georgia was held at State Headquarters, Atlanta. Four hundred professional guidance folders were prepared and each graduate received a copy. These folders contain pertinent current professional guidance material from local and national programs. One of these folders was placed in the library of each School of Nursing.

WOMAN'S AUXILIARY : OFFICERS 1940-1941

President—Mrs. H. G. Banister, Ila.

President-elect—Mrs. Lee Howard, 625 East 44th Street, Savannah.

First Vice-President—Mrs. W. W. Chrisman, 112 Corbin Avenue, Macon.

Second Vice-President—Mrs. Fred Rawlings, Sandersville.

Third Vice-President—Mrs. D. Lloyd Wood, Dalton.

Recording Secretary—Mrs. Loren Gary, Jr., Shellman.

Treasurer—Mrs. W. Bruce Schaefer, Toccoa.

Corresponding Secretary—Mrs. L. S. Patton, Athens.

Parliamentarian—Mrs. J. E. Penland, Waycross.

Historian—Mrs. W. A. Selman, 760 Penn Ave., N. E., Atlanta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.

NATIONAL PRESIDENT

Mrs. V. E. Holcombe, of Charleston, W. Va., president of the Woman's Auxiliary to the American Medical Association, was a recent prominent visitor in Atlanta and in a message to Georgia Auxiliary members said: "We as Auxiliary leaders consider it a privilege to lend our influence to other groups of women of our United States in bringing to their attention dependable knowledge and a just appreciation of the real spirit, purpose and actual achievements of the medical profession and scientific medicine as it has been practiced in our country. Let us not be severed from the primary objectives of our Auxiliary in permitting ourselves to be distracted by apparent threatening emergencies. Ours is a fixed and lasting obligation. Each of us has a place in life; the physician's place is among the sick and those who need guidance in health. By our choice we have taken this place with him."

Continuing, Mrs. Holcombe urged not only Auxiliary members but all women to take their places on the psychologic defense line, stating that "we need to revitalize our ideals, not by adding to war hysteria but by providing each in her own field of endeavor the calm, thoughtful leadership so needed in crisis. First let us attack the problems which we are best suited to combat and qualified to defeat, the enemy of ignorance, malnutrition and misinformation, poverty, etc., at our very door. Let us in our home life, club life, church life and everyday life continue our activity in the things we already are doing, only do these better than ever before.

"Let us strive to build and develop a greater proficiency in one or more phases of social and welfare work under the auspices of the tried and well established organizations in which we already have pledged our allegiance. Let us take this volunteer service seriously and realize more fully our individual responsibility. Let us do all we can to effect a sound health program which will result in making 'every American stronger than before, steadier in nerves, sturdier in body and surer in living.' This is a vital part of our job as women, mothers and leaders in our respective posts of duty."

Mrs. Holcombe, lovely and gracious with the charm of a real Southern gentlewoman, created a profound impression upon all who met her, and inspired Georgia Auxiliary members to greater enthusiasm for the work which she so successfully leads. She visited Mrs. Olin Cofer in Atlanta, and was honored at a luncheon at which Mrs. H. G. Banister, of Ila, president of the Woman's Auxiliary to the Medical Association of Georgia, was hostess.

BIBB COUNTY

Following a recent talk by Dr. C. C. Harrold, the Bibb County Medical Auxiliary in Macon adopted a resolution urging the State Board of Health to develop more of a cancer prevention program, especially among the poor. Dr. Harrold stressed the lack of such facilities at present, pointing out that there are hundreds of cases in which proper treatment would halt the disease before it became malignant. Though saying 1,500 Georgians die annually from the disease, Dr. Harrold praised the program already under way in the State, saying Georgia was the fourth State in the union to attempt state aid and that the campaign here had been adopted by many other states. New officers for the Auxiliary were elected: Mrs. W. W. Chrisman, president; Mrs. Ford Ware, first vice-president; Mrs. J. D. Applewhite, second vice-president; Mrs. W. W. Baxley, recording secretary; Mrs. John I. Hall, corresponding secretary; and Mrs. J. A. Fountain, treasurer. The nominating committee was composed of Mesdames Thomas Harrold, J. Emory Clay and Wallace Bazemore.

TENTH DISTRICT

The Woman's Auxiliary to the Tenth District Medical Society met recently in Athens. Mrs. G. L. Loden, of Colbert, vice-manager, presided. Mrs. H. G. Banister, of Ila, president of the Woman's Auxiliary to the Medical Association of Georgia; and Mrs. Lee Howard, of Savannah, president-elect, spoke, the former on "Intensifying Efforts Toward Accomplishing Our Objectives for the Year," and the latter on "The Importance of the Constitution and By-Laws to Auxiliary Work." Dr. T. C. Davison, of Atlanta, gave an instructive talk on work toward reducing the death rate from appendicitis. The invocation was led by Mrs. H. W. Birdsong, and Mrs. L. L. Whitley, of Crawford, welcomed the guests, to which Mrs. Lucius Todd, of Augusta,

responded. Miss Carrie Estes gave a piano solo. Mrs. Loden assumed the office of manager, due to resignation of Mrs. D. N. Thompson. Mrs. R. C. McGahee, of Augusta, was elected vice-manager.

Ware County

In speaking to the Woman's Auxiliary to the Ware County Medical Society, at a recent meeting in Waycross, Dr. B. H. Minchew said, "The true purpose of the medical profession from the time of Hippocrates to the present is service to mankind. The personal contact between physician and patient is essential to good medical practice. President Roosevelt recently stated that nothing can take the place of the family physician. If doctors should be regimented, then valuable incentive to research and study would be lost. If counties are properly organized medically, then medical service will be available to all persons desiring it." Dr. Minchew praised the work being done by the Ware County Hospital and the numerous county and city hospitals throughout the country. The desirability of establishing a dental clinic was discussed, after which lunch was served by the hostesses, Mesdames B. H. Minchew, Harold Muecke and W. D. Mixson.

Clarke County

Miss Catherine Newton, associate professor of foods and nutrition in the School of Home Economics at the University of Georgia, spoke to the Woman's Auxiliary to the Clarke County Medical Society at the meeting held at the home of Mrs. H. I. Reynolds in Athens. Miss Newton gave a plan in outline for bringing the facts in nutrition to every housewife with the following committees: food production, marketing, food preparation and preservation, nutrition in food establishments, food selection and budgeting, nutrition information and school lunch and nutrition teaching in the school. A State nutrition council has been formed with Miss Lerline Collier as chairman and there are 31 different organizations represented on this council. Mrs. H. W. Birdsong, president, presided over the business session. Plans were made for Doctors' Day; Mrs. L. S. Patton was appointed chairman for the day and Mrs. Harvey Cabaniss and Mrs. Reynolds for a picnic to be given then. A social hour followed.

Chatham County

Mrs. E. N. Gleaton, of Savannah, was elected president of the Woman's Auxiliary to the Georgia Medical Society at a recent meeting in Savannah at the home of Mrs. J. E. Porter. In addition to Mrs. Gleaton other officers, whose names were presented by Mrs. Ralston Lattimore, chairman of the nominating committee, were Mrs. Charles Usher, first vice-president; Mrs. R. V. Martin, second vice-president; Mrs. T. A. Peterson, recording secretary; Mrs. E. Carson Denmond, corresponding secretary; Mrs. W. E. Brown, treasurer. A committee composed of Mrs. W. H. Myers, chairman, Mesdames Charles Usher, E. N. Gleaton, S. Elliott Wilson and L. M. Freedman, was appointed to choose a president-elect.

Mrs. J. C. Metts, president, presided over the meeting, which featured annual reports from officers and chairmen. The report of Mrs. Reid Broderick, chairman of Research in Romance of Medicine, was sent to the State archives. Mrs. W. R. Dancy, chairman of revisions of constitution and by-laws, read the proposed changes and they were accepted. It was decided to send the president, president-elect and a member to be selected later as delegates to the State Convention. New members introduced were Mesdames H. W. Dain, Gregg Smith, Ed Armstrong, C. T. Brown, of Guyton, and W. K. Millmore.

A splendid report of the year's work was given by Mrs. Metts. Several recommendations which she made were referred to the executive board. Later a social hour was held with the Marine Hospital doctors' wives, Mesdames Eric Johnson, R. L. Griffith, W. B. Wiley, S. P. Sanford and John Stalvey, co-hostesses with Mrs. Porter.

The Savannah Auxiliary observed Doctors' Day with an open house for the doctors and their wives at the home of Dr. and Mrs. J. C. Metts. The committee in charge was Mrs. H. F. Sharpley, Jr., chairman, Mesdames R. L. Neville, J. H. Pinholster, J. G. Sharpley, H. C. Frech, L. W. Shaw, O. H. Lott and R. L. Oliver. Assisting in serving were Mesdames S. Elliott Wilson, G. H. Lang, S. P. Sanford, T. A. Peterson, W. E. Brown and L. W. Williams. Mrs. J. H. Howkins gave a radio talk in honor of Doctors' Day.

Several Auxiliary members are members of the Woman's Field Army of the American Association for the Control of Cancer. Mrs. R. V. Martin is major. A luncheon was held recently to formulate plans for the observance of Cancer Control Week in Chatham County. Captains are Mesdames Harry Kandel, J. C. Metts, L. W. Williams, G. Hugo Johnson, L. B. Dunn, E. Iseman, and E. N. Gleaton, and lieutenants are Mesdames Charles Usher, T. A. Peterson, W. D. Wilson, R. L. Neville, J. Reid Broderick and W. E. Brown. The Auxiliary voted to contribute $10 toward the purchase of an iron lung.

Eighth District

The Woman's Auxiliary to the Eighth District Medical Society met recently in Waycross, Mrs. T. J. Ferrell, manager, presided. The Rev. R. T. Russell gave the invocation, after which Mrs. Lovic Pierce welcomed guests, and Mrs. Louis Smith, of Lakeland, made the response. Mrs. Lee Howard, of Savannah, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, talked on "Importance of Constitu-

tion and By-Laws in Auxiliary Work." and Mrs. H. G. Banister, of Ila, president of the Auxiliary talked on the group's part in the preparedness program. Dr. J. C. Patterson, of Cuthbert, president of the Medical Association of Georgia, gave an informal talk, after which Mrs. Harry M. Kandel, of Savannah, chairman of public relations, stressed the importance of this work. Mrs. W. R. Dancy, of Savannah, past president, and Mrs. G. L. Loden, of Colbert, chairman of health films, made short talks. After the business session, members of the Auxiliary joined members of the Society for dinner at the Ware Hotel as guests of the Ware County Medical Society.

BARROW COUNTY

The Barrow County Medical Society held its March meeting with Mrs. E. M. McDonald at her home on Athens Street in Winder, Mrs. W. T. Randolph, president, presided. Money was collected to defray dues and to make contributions from the Auxiliary to the Woman's Field Army for the Control of Cancer, Public Relations Fund, Student Loan Fund and Health Film Fund. A delegate was appointed to represent the group at the Ninth District meeting in Gainesville and plans were made for observance of Doctors' Day. Mrs. S. T. Ross read "The Doctor's Wife," by Dr. Rock Sylvester, after which the hostess served refreshments. Present were Mesdames C. B. Almand, E. R. Harris, W. L. Mathews, W. T. Randolph and S. T. Ross.

Amid a background of fragrant spring flowers, the doctors of Barrow County and their wives were honored at a dinner given by Dr. and Mrs. S. T. Ross at their home in Winder celebrating Doctors' Day. The affair marked the eighth annual celebration of Doctors' Day by the Barrow County Medical Auxiliary. The observance was originated by Mrs. C. B. Almand, of Winder. The decorations carried out the colors of the Auxiliary, gold and blue, jonquils, blue hyacinths, spirea and snowdrops were used in the center of the table. Flanking the centerpiece were crystal candelabra holding lighted tapers. At the conclusion of the dinner, a surprise mock wedding was held in honor of Dr. and Mrs. W. T. Randolph, who were celebrating their wedding anniversary.

Unique place cards, bearing original poems by Mrs. W. L. Mathews, marked the guests' places. Present were Dr. and Mrs. Ross, Dr. and Mrs. W. T. Randolph, Dr. and Mrs. W. L. Mathews, Dr. and Mrs. E. R. Harris and Mrs. C. B. Almand.

Members of the Barrow Auxiliary placed wreaths on the graves of doctors in the county, and special mention of the day was made from the pulpits of Winder churches.

BALDWIN COUNTY

Mrs. H. G. Banister, of Ila, president of the Woman's Auxiliary to the Medical Association of Georgia, spoke at the March meeting of the Woman's Auxiliary to the Baldwin County Medical Society in Milledgeville. Mrs. Banister talked on the need of a nutrition program in the face of the war situation, where a possible shortage of food may result. Dr. Charles Fulghum spoke instructively on nervous indigestion, the causes of it and ways to prevent it. He has done much research on this subject and presented many informative ideas. Mrs. C. H. Richardson, president, presided. Mrs. Richard Binion and Mrs. Dawson Allen were elected delegates to the State Convention in Macon. A social hour followed the meeting, which was attended by a number of members and visitors.

NINTH DISTRICT

The semi-annual meeting of the Ninth District Medical Auxiliary was held in Gainesville on March 19. Mrs. C. J. Roper of Jasper presided, and Mrs. Ralph Freeman, Sr., of Hoschton, recording secretary. Mrs. Hartwell Joiner of Gainesville, gave the welcome address, Mrs. W. H. Garrison, Clarkesville, the response. The scripture was read by Mrs. O. N. Harden, Cornelia, and prayer by Mrs. W. L. Mathews, Winder.

The nominating committee was Mrs. E. R. Harris, Winder; Mrs. Ralph Freeman, Sr., Hoschton; and Mrs. Clarence M. Sharp, Alto. Newly elected officers for the next two years are Mrs. W. T. Randolph, Winder, president; Mrs. D. C. Kelley, Lawrenceville, vice-president; and Mrs. O. N. Harden, Cornelia, secretary.

The counties represented were Barrow, Jackson, Habersham, Hall, Cherokee, Pickens and Gwinnett. "Hygeia," the health magazine was stressed, members were asked to place it in all schools and office rooms, and to subscribe.

COBB COUNTY

The Woman's Auxiliary to the Cobb County Medical Society held its quarterly meeting on March 4 in Marietta at the home of Mrs. G. O. Allen. Mrs. W. H. Perkinson, president, presided. Dr. Robert V. Schultz, of Atlanta, director of Health Education for the State Department of Public Health, spoke on nutrition. Mrs. G. F. Hagood, Sr., chairman of Doctors' Day, read a paper on Dr. Crawford W. Long, discoverer of ether anesthesia. After the business session, refreshments were served.

NATIONAL CONVENTION

This is the last call for reservations for the nineteenth annual convention of the Woman's Auxiliary to the American Medical Association, which will be held at Hotel Carter in Cleveland, Ohio, on June 2-6. All Cleveland will extend a hearty welcome to the doctors and their wives. Reservations may be made through Dr. Edward F. Keiger, chairman of committee on hotels and housing, 1604 Terminal Tower Building, Cleveland.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. Abercrombie, M.D., *Director*

PUBLIC HEALTH AND TUBERCULOSIS CONTROL IN GEORGIA

A REVIEW, INCLUDING 1940 ACTIVITIES

Clinic and Consultation Service

The Division of Tuberculosis Control, Georgia Department of Public Health, carried on its case-finding clinic work during 1940 in accordance with the established practices of the past several years. With the approval of or referral by the family physician persons are x-rayed by this division in clinics organized by public health physicians, or nurses, who also furnish histories, results of tuberculin tests, sputum examinations, etc., of those who are to be x-rayed. Careful selection of material for these x-ray clinics is urged because of our limited funds. Household contacts to open cases, patients referred by physicians and tuberculin reactors from adolescence to the late twenties (the 13 to 27 year old age group) are given first consideration. Interpretation of the x-ray pictures and correlation of the facts as presented by the clinic organizers are made by clinicians in this division and are reported to the family physician in all cases. Following the reports, the public health nurse is required to visit the family physician to obtain his instructions and advice concerning the measures that should be employed in the care of his patient. In follow-up visits the nurse is required to convey this instruction and advice to the patient, and so far as may be possible, see that they are carried out.

Recently this division installed an x-ray machine in the office of the State Health Department, which will meet the necessity of emergency x-ray of patients referred by physicians near Atlanta. This service, while rather small at present, is expected to reach fairly large proportions in a short time.

This division has also agreed to interpret x-ray pictures made of tuberculin reactors in National Youth Administration projects in counties that do not have public health services, and also x-ray, so far as possible, tuberculin reactors in similar groups in public health service counties.

Another service which is offered by this division is the interpretation of consultation films sent in by physicians all over the State. Five hundred seventy-nine such interpretations were made in 1940, and forty-five new cases of tuberculosis were diagnosed.

Artificial Pneumothorax Program

For years we have been encouraging physicians to learn how to administer artificial pneumothorax and manage cases of tuberculosis. In 1937, the Georgia Tuberculosis Association undertook to make the treatment of pneumothorax patients by local physicians more attractive by paying small fees to cover the expense. Their report of work done over a period of two years and seven months shows there were only twenty-six deaths in the 327 patients treated in this period. Inasmuch as rehabilitation and job placement of patients who have healed or arrested tuberculosis is so essential to tuberculosis control, the Georgia Tuberculosis Association agreed to attempt to develop this phase provided some arrangement could be made to take care of the pneumothorax refill program. To this end, it was agreed to transfer this service on Aug. 1, 1940 to the State Health Department, which would become responsible for the fees for this treatment. Under this agreement payment of fees for 232 cases was assumed by the State Health Department, which also offers a consultation service to the participating physicians. It is estimated that more than 500 patients in the State are receiving artificial pneumothorax outside of institutions and more than a hundred physicians participate. The need for institutional beds has been, therefore, lessened to the extent of 500 beds. The saving to the State, counties and cities had they been required to furnish hospital care to these patients is close to $300,000.00 annually.

State Tuberculosis Sanatorium Participation

Since July, 1937, the State Tuberculosis Sanatorium has been administered by the State Board of Health, and this has afforded a splendid opportunity to develop a procedure which has been found of great practical value. Previous to 1937, it was customary to admit patients without regard for treatment needs or the public health problem involved. At present, patients are admitted in turn as they are placed on the accepted list for treatment. They are, therefore, able to obtain special treatment at the time it is necessary without interminable and often fatal delay. They are dismissed from the sanatorium as soon as they have reached the period where bed care alone is required, and by this procedure a long and clogged-up waiting list is avoided.

In August, 1940, seventy-one beds were placed in operation at the sanatorium for the more serious public health problem cases, and while seventy-one beds for such a purpose are greatly

inadequate when considered in the light of the existing vast number of such problem cases in the State, they are of definite value.

It is expected that the 240 beds of the new addition at the State Tuberculosis Sanatorium will be placed in operation in 1941. And that this will influence our control efforts favorably is certain.

The great gap between the number of cases there are in the State and the comparatively few beds that are available for them is partly filled by the efforts of this division and of the local public health doctors and nurses in organized counties to have all patients requiring assistance taken care of in some fashion. They do this in various ways—through the medical profession, the local welfare departments, the tuberculosis seal sale committees and associations, local civic groups, and all agencies and individuals from whom it may be possible to secure assistance for these patients in their homes or in the communities in which they live.

1940 *Public Health Activities*

Thirteen thousand six hundred fifty-six x-ray examinations were made by the Division of Tuberculosis Control during 1940 in 200 clinics, in 218 clinic days. In these clinics 582 new cases of tuberculosis were found, which with forty-five cases found through consultation films makes a total of 627 new cases located through this division.

Attention must be called to the continued extraordinary work by local county health officers and nurses. Their reports show that 3,446 patients with tuberculosis received attention through these agencies. Nearly 54,000 field visits were made to see tuberculous patients, contacts and suspects. Over 18,000 or one-third of these visits were made to actual cases of tuberculosis, an average of a little over five visits annually to each active case. Nearly 17,000 tuberculin tests were made, 8,753 or 54.5 per cent of which were positive. Contacts were broken or partly broken in 2,133 cases. Material relief was secured for 707 patients. Twenty tuberculosis cottages were built during the year and during the past four years, 1937-1940, 134 cottages have been built for tuberculosis cases through local public health units or nurses.

Death Trends

While the death rate from tuberculosis is not going down as fast as we would wish, in certain periods remarkable decreases have occurred as shown below:

Period	*Average deaths per year*	*Average annual decrease of deaths from previous period*
1930-32 (3 years)	2091	
1933-36 (4 years)	1748	343
1937-40 (4 years)	1552	196

The first major drop occurred after larger clinics and local public health services were developed. The second drop, 1937-40, was concurrent with the development of the pneumothorax refill program, the employment of the State Tuberculosis Sanatorium chiefly for lung collapse cases and the further development also of public health and relief programs.

Provisional figures for 1940, which will not be changed much, are as follows: Total deaths, 1,513, rate per 100,000 population 48.4. The white rate is 26.4 and colored 87.6, with 528 and 985 deaths respectively in the two races.

Necessity of Community Effort

Every possible effort is now being made to bring to the attention of everyone that in the control of tuberculosis each community must recognize its own responsibility toward determining and providing what is necessary and helpful for those who have tuberculosis, and toward preventing to the greatest possible extent the spread of infection to its citizens. A full realization that the State does not provide adequate facilities for taking care of the needy tuberculosis patients of the State and a determination by each community to fill the gap should result in another very marked lowering of the death rate.

Extension of Efforts Needed

It is hoped that nothing will be allowed to interfere with the further growth of our very widely developed and integrated or cooperative tuberculosis control program. If this broad program of case-finding, hospitalization, treatment, relief, rehabilitation and education can be more fully and adequately developed, much more rapid control of tuberculosis will result. Prevention can be brought about only by the discovery of cases first, and by their isolation and treatment second. Everything that is to be done should be done with this in mind.

H. C. SCHENCK, M.D.,
Director, Division of Tuberculosis Control, Georgia Department of Public Health.

NEWS ITEMS

THE FIFTH DISTRICT MEDICAL SOCIETY met in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, on April 17. The program consisted of titles of addresses and papers as follows: *The Role of the Medical Association of Georgia in the Present Crisis*, by Dr. J. C. Patterson, Cuthbert, president of the Association; *Some Problems of Medical Preparedness*, Col. James E. Baylis, surgeon, Fourth Corps Area, Atlanta; *Pathologic Physiology of the Liver and Its Relation to Surgical Mortality in Biliary Tract Disease*, Dr. Herbert Acuff, Knoxville, Tenn.; *The Relation of the Problems of Industrial Medicine to Medical Preparedness*, Dr. C. M. Peterson, secretary, Council Industrial Health, A.M.A., Chicago; *Public Aspects of Air Pollution by Smoke*, Mr. Raymond R. Tucker, St. Louis, Mo., Commissioner on Smoke Regulations.

The Second District Medical Society met at Albany on April 11. Physicians on the program included: Dr. F. K. Neill, Albany, read a paper entitled *Kirshnter Wires in Fractures*; Dr. Ernest F. Wahl, Thomasville, *Newer Biological and Chemicals in Medicine*; Dr. Allen H. Bunce, Atlanta, president-elect of the Medical Association of Georgia, *Progress in Internal Medicine*; Dr. W. F. Reavis, Waycross, *Anomilies of Upper Urinary Tracts—Report of Cases*; Dr. John W. Mobley, Pelham, *A Common Cause in Delayed Parturition*; Mr. W. W. Guy, Valdosta, *Pentothal Sodium Anesthesia—Motion Picture.*

The Randolph-Terrell Counties Medical Society met at the Patterson Hospital, Cuthbert, April 4.

The Regular Staff meeting of the Georgia Baptist Hospital, Atlanta, was held in the Nurses' Home, April 15. Dr. Philip Nippert reported a case, *Avitaminosis;* Dr. C. C. Aven, *Chronic Myeloid Leukemia.*

The Eighth District Medical Society met at the Ware Hotel, Waycross, April 8. Dr. L. W. Pierce, Waycross, read a paper entitled, *Urological Examinations as an Aid in Differential Diagnosis of Abdominal Conditions*; Dr. J. C. Patterson, Cuthbert, president of the Medical Association of Georgia, *Address*: Dr. William B. Porter, Richmond, Va., *Address*; Dr. E. P. Lehman, Charlottesville, Va., *Address*; Dr. E. F. Thompson, Valdosta, and Dr. J. R. Paulk, Moultrie, showed *Motion Pictures of Eye Surgery.*

Dr. L. C. Fischer, Atlanta, spoke on *Group Hospitalization* at a mass meeting held in the Fulton County Courthouse, April 8.

Dr. Champ H. Holmes, Atlanta, was guest speaker before the meeting of the First District Medical Society in Swainsboro, March 12.

Dr. H. C. Schenck, Atlanta, State Department of Puhlic Health, was principal speaker at the annual meeting of the Chatham-Savannah Tuberculosis Association, March 20.

Dr. Floyd W. McRae, Atlanta, was recently elected president of the Surgical Association of the A. & W. P. R. R., Western Railway of Alabama and the Georgia Railroad.

Dr. C. C. Aven, Atlanta, was elected president of the Social Planning Council.

Dr. W. H. Wall, Blakely, has been elected president of the Blakely Rotary Club.

The Askew Memorial Hospital, Nashville, Ga., was dedicated on March 30. Dr. Frank Bird, Valdosta, was the principal speaker. Many friends called during the afternoon and to offer their congratulations to Dr. P. H. Askew, Jr. and Mrs. Clarice Hendricks, who dedicated the hospital to their father and mother.

Dr. P. O. Chaudron, Cedartown, has been appointed associate medical examiner for the Polk County Board.

Dr. S. L. Harp, formerly of Marshallville, has moved to Brunswick where he will be in charge of the mobile clinic for Camden, Glynn and McIntosh Counties.

Dr. Walker L. Curtis, College Park, has been appointed medical examiner of the Civil Aeronautics Administration. He succeeds the late Dr. David Monchief.

Dr. H. T. Adkins, Americus, Sumter County commissioner of health, has just completed a post-graduate course at the University of Georgia School of Medicine, Augusta.

Dr. Edgar H. Greene, Atlanta, has been appointed State selective service medical officer.

Additional physicians appointed to serve on Savannah's selection boards are: Dr. Wm. Geo. Tyson, Dr. H. L. Levington, Dr. G. E. Egloff, Dr. Jno. W. Daniel, Dr. D. W. Fillingim, and Dr Jacob Rubin.

Dr. Wm. C. Cook, Dr. A. N. Dykes, Dr. W. M. Forte and Dr. H. G. West, all of Columbus, have been elected to serve on the City-County Board of Health.

Dr. Calvin Sandison announces the opening of his office in Suite 1019 of the Doctors' Building, Atlanta, for the practice of orthopedic surgery. He was formerly associated with Dr. Lawson Thornton.

Dr. Howard Phillips and Dr. Linus J. Miller announce their association in the practice of anesthesiology.

The staff of the Grady Hospital, Atlanta, met on April 8. Dr. Talbert Cooper reported cases of Jaundice; discussed by Dr. Gaston Gay, Dr. L. Minor Blackford and Dr. J. N. Stannard.

The Michael Reese Hospital, Chicago, announces that a graduate course in electrocardiography for physicians will be given at the Hospital by Dr. Louis N. Katz, from August 18 to August 30, 1941.

The regular monthly staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on April 10. Dr. Linton Smith reported cases of *Salfanilamide Parenterally for Peritonitis*; Dr. J. L. Henry reported a case of *Chorea Involving the Brain, Resulting in Avitaminosis*, discussed by Dr. L. C. Fischer, Dr. R. B. Wilson and Dr. Stacy C. Howell.

The Georgia Medical Society, Savannah, met on April 8. Dr. W. D. Wilson read a paper entitled, *The Prognosis in Gallbladder Surgery*, discussed by Dr. T. P. Waring and Dr. M. J. Epting; Dr. S. Elliott Wilson reported a case, *The Use of Indwelling Ureteral Catheter.* The program for the April 22 meeting included the following titles for a paper and report of case, *Second Clinical Report on the Use of Vitamin C and Nicotinic Acid in the Edema of Bright's Disease*, by Dr. J. W. Daniel, Sr.; *Report of Two Cases of Fangus Infection of the Lungs*, Dr. T. P. Waring.

Excellent location for a practicing physician. Good place to live, salary and valuable concessions go with this offer. If interested, write the Secretary-Treasurer.

OBITUARY

Dr. Marion Lee Compton, Augusta; member; University of Texas School of Medicine, Galveston, Texas, 1917; aged 47; died at the Veterans'Administration Facility, Augusta, March 27, 1941. He was sick for only a few days. He was a native of Fort Worth, Texas. Dr. Compton received his collegiate degree at the University of Texas. After he graduated in medicine, he served as Lieutenant in the Medical Corps of the United States Army until July, 1919. Dr. Compton was engaged at different times in Veterans' Administration Facilities at the following places: Dallas, Texas; Little Rock, Ark.; Lyons, N. Y.; Lexington, Ky.; Washington, D. C.; and then transferred to Augusta in 1939. Dr. Compton was a member of the Richmond County Medical Society, Masonic lodge, fellow of the American College of Physicians, fellow of the American Medical Association and a member of St. John's Methodist church. He is survived by his widow, a son, Marion Lee Compton, Jr.; two sisters, Mrs. G. T. Naylor, Dallas, Texas, and Mrs. E. C. Geor, Fort Worth, Texas; two brothers, T. A. Compton, Fort Worth, and Col. L. J. Compton, Washington, D. C. Rev. C. C. Jarrell officiated at the funeral services conducted at the St. John's Methodist church. Burial was in Arlington National Cemetery, Arlington, Va.

Dr. William F. Sibbett, Douglas; member; Atlanta School of Medicine, Atlanta, 1910; aged 56; died on March 11, 1941 at his home. He was forced on account of ill health to give up his practice several years ago. He was a native of North Carolina. He was the second mayor of Douglas and had practiced medicine in Coffee and adjoining counties for more than fifty years. Dr. Sibbett was a member of the Coffee County Medical Society, Elks, Masons and the First Baptist church. Surviving him are one son, Dr. W. A. Sibbett of Douglas; and one daughter, Mrs. E. F. Sapp, Albany. Rev. B. E. Donehoo assisted by Rev. Lee A. Belford conducted the funeral services at the graveside.

Dr. Stewart Ralph Roberts, Atlanta; member; Atlanta College of Physicians and Surgeons, Atlanta, 1900; aged 62; died on April 14, 1941 at his home. He was born at Oxford, Ga. Dr. Roberts was recognized as a successful diagnostician and had an extensive practice. He was active in the organization of the Emory Unit Base Hospital during the first World War. Later he was transferred to Fort Jackson, S. C. where as Lieutenant-Colonel he acted as commanding officer of the camp base hospital. Dr. Roberts possessed an excellent talent as a speaker and writer and contributed many articles to medical publications. He was a member of the Fulton County Medical Society, American Clinical and Climatological Association, American Board of Internal Medicine, and American Medical Association. For a number of years and until his death, he was clinical professor of medicine at Emory University School of Medicine. Surviving him are his widow, three children, Stewart R., Jr., James William and Ross Holbrook Roberts. Dr. Nat G. Long and Dr. Edward G. Mackay officiated at the funeral services conducted at the Glenn Memorial Methodist church at Emory University. Burial was in Oxford cemetery near Covington.

Dr. Randolph D. Jones, Elza (P. O. Reidsville); member; University of Georgia School of Medicine, Augusta, 1899; aged 64; died at his home on March 28, 1940. He was a native of Bulloch County, a successful practitioner and was held in high esteem by many patients and other friends.

Dr. Thomas M. Merritt, Americus; member; College of Physicians and Surgeons of Baltimore, Md., 1891; aged 77; died on March 30, 1941 at a local hospital. He was a native of Hancock County. Dr. Merritt received his collegiate degree at the University of Georgia, Athens. Surviving him are his widow, two daughters, Mrs. Harvey Bell, Americus, and Mrs. W. R. Baumert, New York City; three sons, James Lewis, Samuel and William Byron Merritt, all of Americus. Rev. John R. Jovner officiated at the funeral services conducted at the residence. Burial was in Oak Grove cemetery.

Dr. John Wesley Lee Brannon, Atlanta; Emory University of Georgia School of Medicine, Emory University, 1895; aged 68; died on April 15, 1941 at his home. He was a native of Camden, S. C. Dr. Brannon practiced medicine for fifteen years before he retired on account of ill health. He was a member of St. Mark's Methodist church. Surviving him are his widow, one daughter, Mrs. John C. Mitchell, Dalton; three stepsons, Carlton Redfearn, Oak Park, Ill.; C. E. and G. C. Redfearn, both of Atlanta. Dr. Lester Rumble officiated at the funeral services conducted at Spring Hill chapel. Burial was in Douglasville cemetery.

Dr. Tip Cox, Arabi; Vanderbilt University School of Medicine, Nashville, Tenn., 1901; aged 61; died at his home on April 4, 1941. He was a native of Arahi and a successful practitioner until a few years ago when partially paralyzed. He was a member of the Arabi Baptist church. Surviving him are his widow, four daughters, Mrs. John C. Spires, Miss Narcissi Cox and Miss Evelyn Cox, all of Arabi; and Mrs. W. A. Smith, Savannah; one son, Tip Gerald Cox, Arabi. Rev. Ben Rainey and Rev. D. W. Gilmer officiated at the funeral services conducted at the Arabi Baptist church. Interment was in the Arabi cemetery.

Dr. Arlander Alonzo Barge, Newnan; member; Emory University School of Medicine, Emory University, 1891; aged 81; died on April 18, 1841 of heart disease at his home. He was born and reared in old Campbell county and received his early education in Fairburn puhlic schools. Dr. Barge began practice at Rock Run, Alabama, then moved to Newnan where he had practiced for 49 years. Through his genial and cordial manner, he acquired hundreds of friends. He served as secretary-treasurer of the Coweta County Medical Society for many years, and at one time president of the Fourth District Medical Society. He took post-graduate work at the New York Polyclinic Medical School and Hospital, New York. Surviving him are his daughter, Miss Margaret Barge, Newnan; two sons, Dr. Hubert A. Barge and Dr. William J. Barge, both of Miami,

Fla. Rev. C. C. Thomas assisted by Rev. R. C. S. Young, Rev. J. E. Hannah and Rev. J. W. Veatch officiated at the funeral services conducted at the First Baptist church. Burial was in Oak Hill cemetery.

Dr. George T. Brown, Atlanta; Southern Medical College, Atlanta, 1892; aged 79; died in a private hospital in Atlanta on March 9, 1941. He was born in Belton, S. C. After he graduated in medicine, he went to Mexico and began practice there. He then went to Europe and lived in Paris for a time. Dr. Brown began practice in Atlanta in 1922. He was charitable and it has been estimated that at least half of his practice was for the indigent who were unable to pay. He served as a major in the Reserve Corps of the U. S. Army during the World War. Dr. Brown served in the Legislature for four terms. He was past president of the Atlanta Chapter of the Sons of the American Revolution and a member of the Piedmont Lodge of F. & A. M., Scottish Rite Mason, Knights Templar and Yaarab Temple. Surviving him are his widow, three daughters, Mrs. Burke Hedges, Havana, Cuba; Mrs. Reid Sherrard, Decatur, Ala.; Mrs. Stanley Morsbach, Cincinnati; five sons, Melville, Charles, Allen and George T. Brown, Jr., all of Belton, S. C.; and Keet Brown, Cincinnati.

Dr. Huston B. Terry, Acworth; member; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1900; aged 65; died at his home on March 18, 1941. He was a native of Chatsworth. Dr. Terry had practiced in Cobb, Cherokee, Bartow and Paulding counties for forty years. His clientele spread over a wide area indicated the esteem the people had for him and that he was a successful practitioner. He was a member of the Cobb County Medical Society, Masons and the First Baptist Church. Surviving him are his widow, three daughters, Mrs. G. C. Tyson, Atlanta; Miss Jennie Mae Terry, Acworth; and Mrs. James Hazelwood, Hapeville; two brothers, Cyrus and G. C. Terry, Chatsworth. Rev. John Clark officiated at the funeral services conducted at the First Baptist Church. Burial was in the Acworth cemetery.

Resolutions on the Death of Dr. Thomas Hightower Hancock

Dr. Thomas Hightower Hancock departed this life at his home Nov. 17. 1940 in his 71st year, after spending nearly fifty years in the practice of medicine. He was born at "Ellerslie" near Charlottesville, Virginia, in 1869, where he received his elementary education, and in 1891 graduated from the Medical Department of Columbia University. He served as intern for two years at the Polyclinic Hospital, New York City, where he assisted Dr. John Wyeth, internationally known surgeon and author, and became his friend and great admirer. Dr. Hancock never tired of telling of this great surgeon and quoting his judgment on surgical questions.

Dr. Hancock came to Atlanta in 1893 where he formed a partnership in medicine with the late Dr. W. C. Jarnagin, and they did a very large surgical practice, especially for corporations. He was surgeon for the Southern Railroad, surgeon of the Georgia Power Company, consulting surgeon for the Seaboard Railroad, and the Central Railroad, and many other corporations. He served as president of the Southern States Association of Railway Surgeons, president of the Association of Surgeons of the Southern Railway and president of the Association of Surgeons of the Central Railroad.

He was a member of the Knights of Pythias, and senior warden of the Holy Comforter Episcopal Church. He loved his church and was an active member and frequent attendant. In 1907 he became founder of the Atlanta Hospital, a small private institution, but where for many years the nursing and medical service were among the best of any institution in the city, and where a great many charity and semi-charity patients found relief from pain and disease.

When Dr. Hancock made Atlanta his home in 1893, he at once became a member of organized medicine in the Fulton County Medical Society. He safeguarded, practiced and preached the ethics of his profession and had no patience with those who stooped to undermine the confidence of a patient in a brother doctor.

Dr. Hancock was from a wealthy, aristocratic, Virginia family; but he was a man whose simplicity of life and whose friendliness for the plain people and his great kindness and consideration for the poor and needy made him stand out conspicuously as a man of unusual character that helped to mould and encourage the lives of those who knew him.

He was the kind of friend that would give unstintedly of time and means, and he expected and admired that kind of friendship from others. His judgment on controversial questions may have not always been the very best, but he never straddled the fence—he was definitely on one side or the other, and he always championed the side of the downtrodden or oppressed. He was very easily affected by any one's troubles and the sad plight of a child would never fail to bring him to its rescue in self-sacrificing service.

His life of unselfishness, his fifty years of marvelous service in ministering to the sick, his loyalty to friends, and his untiring efforts for their good, his hatred for deceit, his love for humanity, his love for his church, his love for his God—made him a man whose character the younger generation of his profession would do well to study and ponder and emulate.

Tom Hancock did not fight the perfect fight—who does?—but he did fight the good fight and we believe "that there is laid up for him a crown of righteousness which the Righteous Judge shall give him in that day."

At the time of his death he was survived by his wife, two daughters and two sons, also a brother, Dr. Charles R. Hancock of this city.

Whereas, our society has lost one of its oldest members, a surgeon of unusual attainment and ability, a friend of great worth; be it *resolved* that these remarks be spread upon the minutes of our Society, our sympathy be expressed to his loved ones, and a copy be fur-

nished the Journal of the Medical Association of Georgia.

W. A. ARNOLD, M.D.
L. G. BAGGETT, M.D.
J. D. MANGET, M.D.

Resolutions on the Death of Dr. Selmer D. Gausemel

Selmer Dean Gausemel was born in Kenyon, Minnesota, on September 21, 1892. He received his literary and professional education at the University of Minnesota, where he was a medical student in 1918. With twelve other students from this school he joined Base Hospital 26, organized as the Mayo Unit, before graduating from school, his diploma being awarded *in absentia.*

With this unit he came to Georgia for training at Fort McPherson. While here he met Miss Gladys Payne whom he later married and who survives him. Upon return of his unit from abroad he remained and saw service with the American Red Cross in Belgium, Italy, Turkey and Roumania. He was docorated by the King of Serbia for outstanding work with the Red Cross in that country.

Upon returning from abroad he practiced for six years in Goodhue, Minnesota, during that time serving as mayor of the city. He came to Atlanta to practice in 1926, and since his residence here acquired a large practice and made many friends by his ever pleasant disposition. Those who knew him best had the highest regard for his professional attainments and personal qualities. He will be greatly missed.

Therefore, be it resolved that the Fulton County Medical Society, having lost a valuable member and the medical profession a true friend, dedicate a page of its minutes to Dr. Gausemel for the recording of these resolutions. And, that a copy of these resolutions be sent to Mrs. Gausemel with expression of the Society's sympathy.

ALBERT A. RAYLE, M.D., *Chairman,*
WM. PERRIN NICHOLSON, M.D.,
RANDOLPH SMITH, M.D.

EMORY MEDICAL ALUMNI CLINICS

Post-Graduate Program—Grady Hospital, Atlanta

TUESDAY, JUNE 10

8:00 A.M.—*Registration at College Building, corner Butler and Armstrong streets; basement Colored Unit—Grady Hospital, White Unit.*

8:00-10:00—*Surgical Clinics.*
Drs. Julian Riley and Lynn Fort.

8:00-10:00—*Urologic Clinic.*
Drs. Stephen T. Brown, Ross Brown and W. E. Upchurch.

GRADY HOSPITAL, COLORED UNIT

8:00-10:00—*Surgical Clinics.*
Dr. Ira Ferguson.

LECTURE ROOM—DR. M. C. PRUITT, Presiding

8:30-9:00—*Blackheads and Pimples and What to Do About Them.*
Drs. Jack Jones and Herbert Alden.

9:00-9:30—*The So-Called Surgical Abdomen.*
Dr. C. W. Roberts.

9:30-10:00—*The Fatal Types of Peptic Ulcers.*
Dr. J. B. Fitts.

10:00-10:30—*Vaginal Bleeding.*
Dr. B. T. Beasley.

10:30-11:00—*Diverticulitis and Epiploitis of the Colon.*
Dr. W. A. Selman.

11:00-11:30—*Management of the Asthmatic.*
Dr. Hal Davison.

11:30-12:00—*The Principles Underlying the Treatment of Cancer.*
Dr. J. L. Campbell.

12:00-12:30 P.M.—*The Indications for Partial and Total Gastrectomy.*
Dr. Lon Grove.

12:30-1:00—*Medical Clinic.*
Dr. C. W. Strickler, Sr.

LECTURE ROOM—DR. HARRY ROGERS, Presiding

2:00-2:30—*The Soldier's Heart.*
Dr. Minor Blackford.

2:30-3:00—*Differential Diagnosis of Tongue Lesions Including the Vitamin Deficiencies. Colored Photographic Illustrations.*
Dr. Philip Nippert.

3:00-3:30—*Drug Eruptions.*
Dr. Hugh Hailey.

3:30-4:00—*Exploring with X-Ray. Talking Moving Pictures.*
Dr. Jack Landham.

WEDNESDAY, JUNE 11

GRADY HOSPTAL, WHITE UNIT

8:00-10:00 A.M.—*Surgical Clinics.*
Drs. George Fuller, A. S. Sanders and Henry Poer.

8:00-10:00—*Surgical Proctologic Clinic.*
Dr. M. C. Pruitt.

GRADY HOSPITAL, COLORED UNIT

8:00-10:00—*Surgical Clinic.*
Dr. Dan Elkin.

LECTURE ROOM—DR. J. L. PITTMAN, Presiding

8:30-9:00—*The Endocrinologic Aspects of the Menopause.*
Dr. Edgar Greene.

9:00-9:30—*The Management of Duodenal Ulcer.*
Dr. Hugh Wood.

9:30-10:00—*Treatment of Abdominal Hernias.*
Dr. F. K. Boland, Sr.

10:00-10:30—*Bronchiectasis: Medical Care.*
Dr. C. C. Aven.

10:30-11:00—*The Present Status of the Sciatica Problem.*
Dr. Exum Walker.

11:00-11:30—*Some Common Foot Disorders.*
Dr. Jos. H. Boland.

11:30-12:00—*Clinical Studies of Gout.*
Dr. Mark Dougherty.

12:00-12:30 P.M.—*Sodium Pentothal Intravenous Anesthesia in General Surgery. Lantern Slides.*
Dr. Fred Rudder.

12:30-1:00—*Newer Concepts of Diabetes Mellitus.*
Dr. J. E. Paullin.

LECTURE ROOM—DR. E. A. BANCKER, Presiding

2:00-2:30—*Treatment of Asphyxia of the Newborn.*
Dr. B. H. Boyd.
2:30-3:00—*Vitamin B. Avitaminosis.*
Dr. Jos. Yampolsky.
3:00-3:30—*The Importance of Early Diagnosis of Kidney Diseuse. Lantern Slides.*
Drs. E. G. Ballenger, Harold McDonald and R. C. Coleman, Jr.
3:30-4:00—*Tumors of the Lower Genito-Urinary Tract.*
Dr. S. A. Kirkland.
4:00-4:30—*The Value of Autogenous Vaccine.*
Dr. A. J. Ayers.

Thursday, June 12

Grady Hospital, White Unit

8:00-10:00 A.M.—*Gynecologic Clinic.*
Dr. L. G. Baggett.

Grady Hospital, Colored Unit

Lecture Room—Dr. R. H. Oppenheimer, Presiding

8:30-9:00—*The Advantages of Glood Plasma in Surgical Diseases.*
Dr. J. D. Martin.
9:00-9:30—*Unusual Intestinal Cases.*
Dr. Mason Lowance.
9:30-10:00—*Mobile Kidney as the Cause of Constitutional Conditions.*
Dr. Samuel Sinkoe.
10:00-10:30—*Pitfalls to be Avoided in the Treatment of Goiter. Lantern Slides.*
Drs. T. C. Davison and J. W. Williamson.
10:30-11:00—*Cardiovascular Roentgenology and Fluoroscopy.*
Dr. A. J. Merrill.
11:00-11:30—*Conservative Treatment of Gangrene of the Lower Extremities.*
Dr. Henry Poer.
11:30-12:00—*Pancreatic Cyst.*
Dr. Kells Boland.
12:00-12:30 P.M.—*Treatment of Respiratory Diseases in Children.*
Dr. W. W. Anderson.
12:30-1:00—*Variations in the Normal Heart.*
Drs. Allen H. Bunce and Robert H. Davis.

Lecture Room—Dr. M. C. Pruitt, Presiding

2:00-2:30—*Eczema of the Skin at the Body Openings. Lantern Slides.*
Dr. Howard Hailey.
2:30-3:00—*Difficult Dentition in Children.*
Dr. Dixon Fowler.
3:00-3:30—*Prophylaxis of Measles.*
Dr. R. W. Dickson.
3:30-4:00—*Physical Complaints of Children Caused by Psychologic Problems.*
Dr. W. H. Kiser, Jr.
7:00 P.M.—*Banquet.* Biltmore Hotel.

THE DIFFERENTIAL DIAGNOSIS OF JAUNDICE AND CAROTINEMIA

(Continued from page 241)

rapid clearing of the skin pigmentation. Our patient received liquid petrolatum, but not for the effect mentioned. It would seem that this method could be helpful in the handling of the condition if desirable to reduce the skin pigmentation rapidly for cosmetic reasons.

Summary

A case of carotinemia in which the diagnosis of obstructive jaundice had been made is reported. The differential diagnosis of the two conditions on the basis of clinical and simple laboratory measures is discussed. A suggestion is noted that may prove helpful in the treatment of the condition.

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COUNTIES REPORTING FOR 1941

Crisp County Medical Society

The Crisp County Medical Society announces the following officers for 1941:

President—Charlie Adams, Cordele
Vice President—H. J. Williams, Cordele
Secretary-Treasurer—L. O. Wootten, Cordele
Delegate—P. L. Williams

Lamar County Medical Society

The Lamar County Medical Society announces the following officers for 1941:

President—J. H. Jackson, Barnesville
Vice President—D. W. Pritchett, Barnesville
Secretary-Treasurer—S. B. Traylor, Barnesville
Delegate—J. A. Corry, Barnesville

Jefferson County Medical Society

The Jefferson County Medical Society announces the following officers for 1941:

President—S. T. R. Revell, Louisville
Vice President—Jno. J. Pilcher, Wrens
Secretary-Treasurer—S. C. Ketchin, Louisville
Delegate—S. T. R. Revell, Louisville
Alternate Delegate—V. L. Bryant, Bartow

Decutur-Seminole Counties Medical Society

The Decatur-Seminole Counties Medical Society announces the following officers for 1941:

President—H. B. Jenkins, Donalsonville
Vice President—W. L. Wilkinson, Bainbridge
Secretary-Treasurer—M. A. Ehrlich, Bainbridge

Delegate—R. F. Wheat, Bainbridge
Alternate Delegate—M. A. Ehrlich

Sumter County Medical Society

The Sumter County Medical Society announces the following officers for 1941:

President—Russell Thomas, Americus
Vice-President—J. C. Logan, Plains
Secretary-Treasurer—R. H. Enzor, Smithville
Delegate—R. C. Pendergrass, Americus
Alternate Delegate—J. C. Logan, Plains

Elbert County Medical Society

The Elbert County Medical Society announces the following officers for 1941:

President—J. E. Johnson, Jr., Elberton
Vice President—D. N. Thompson, Elberton
Secretary-Treasurer—A. S. Johnson, Elberton
Delegate—D. V. Bailey, Elberton
Alternate Delegate—W. A. Johnson, Elberton

Blue Ridge Medical Society

The Blue Ridge Medical Society announces the following officers for 1941:

President—E. W. Watkins, Ellijay
Vice President—A. K. Duckett, Blue Ridge
Secretary-Treasurer—C. B. Crawford, Blue Ridge
Delegate—Jas. F. O'Daniel, Ellijay
Alternate Delegate—E. W. Watkins, Ellijay

Gordon County Medical Society

The Gordon County Medical Society announces the following officers for 1941:

President—M. A. Acree, Calhoun
Vice President—W. R. Barnett, Calhoun
Secretary-Treasurer—W. D. Hall, Calhoun
Delegate—W. D. Hall, Calhoun

Walker-Catoosa-Dade Counties Medical Society

The Walker-Catoosa-Dade Counties Medical Society announces the following officers for 1941:

President—R. C. Shepard, LaFayette
Vice President—F. H. Simonton, Chickamauga
Secretary-Treasurer—P. M. Golley, LaFayette
Delegate—R. C. Shepard, LaFayette
Alternate Delegate—F. H. Simonton, Chickamauga

Ware County Medical Society

The Ware County Medical Society announces the following officers for 1941:

President—K. C. Walden, Waycross
Vice President—Lewis H. Oden, Jr., Blackshear
Secretary-Treasurer—Kenneth McCullough, Waycross
Delegate—W. F. Reavis, Waycross

Hancock County Medical Society

The Hancock County Medical Society announces the following officers for 1941:

President—Horace Darden, Sparta
Secretary-Treasurer—H. L. Earl, Sparta
Delegate—C. S. Jernigan, Sparta

Lamar County Medical Society

The Lamar County Medical Society announces the following officers for 1941:

President—J. H. Jackson, Barnesville
Vice President—D. W. Pritchett, Barnesville
Secretary-Treasurer—S. B. Traylor, Barnesville
Delegate—J. A. Corry, Barnesville

Forsyth County Medical Society

The Forsyth County Medical Society announces the following officers for 1941:

President—Marcus Mashburn, Cumming
Secretary-Treasurer—W. E. Lipscomb, Cumming
Delegate—Marcus Mashburn, Cumming

LEDERLE ADDS CEREVIM TO LIST OF COUNCIL ACCEPTED PRODUCTS

Most recent addition to the Lederle line of ethical pharmaceuticals and biologicals is Cerevim, an advanced cereal formula for babies and infants, formerly distributed by the Cerevim Products Corporation.

In announcing the addition of this established product to their line, Lederle Laboratories emphasize that they will continue to follow their own policy of detailing physicians and selling through retail druggists only—which is the same basis on which substantial sales for Cerevim have been established already.

Cerevim is Council-Accepted and has the full endorsement of the Council on Foods of the American Medical Association. Cerevim is a mixture of natural foods scientifically blended, and provides an excellent natural source of Vitamin B Complex factors and Iron. The formula was developed on the basis of five years' research at leading Eastern Universities and clinics which preceded the product's introduction in 1937.

Lederle Laboratories have outlined sales efforts which will include emphasis on Cerevim not only for infant feeding, but for other uses in the medical field in which soft, bland diets are indicated. It is pointed out that its appealing taste to adult as well as infant palates in addition to its unusual nutrient qualities makes Cerevim well fitted for this.

SAVE AND SELL YOUR WORN RUBBER GOODS FOR NATIONAL DEFENSE

If you have not already begun to save and to sell your worn rubber gloves, bottle stoppers, tubing, Asepto and ear bulbs, in fact all kinds and grades of rubber goods usually discarded, it is easy to do so, and now is the time to begin, for our government needs all of the rubber it can get.

Recently, Paul Mallon, the newspaper columnist, stated that 300,000 tons of rubber are needed for the national defense program but to that date only 85,000 tons had been bought; and that buying had been suspended because the price had been upped prohibitively.*

Perhaps you heard Mr. Harvey S. Firestone, Jr., of the Firestone Tire & Rubber Company, Akron, Ohio, in a radio broadcast last fall, state that our second means of procuring rubber was to conserve that already in the United States.

Nearly all hospitals, doctors and dentists in private practice, discard daily what to them is worthless rubber, but if saved and sold to scrap dealers would find its way back to commercial reclamation plants, hence available for national defense.

Mr. Firestone makes the following valuable suggestions about the disposition of used hospital rubber:

"It would be my suggestion that you sell your hospital's scrap rubber, including that from sheeting, hot water bottles, rubber gloves, tubing, etc., to any scrap dealer who will give you the best price for it. In that way it will find a route to the reclaiming plants and the hospital will obtain some salvage value from it. Market prices of scrap rubber fluctuate the same as do prices of any other commodities. Further, different prices for the same grades will prevail in different communities because of differences in shipping costs that must be incurred to get the rubber to points where it can be reclaimed. Speaking generally, however, the types of scrap rubber which a hospital can accumulate will vary in price from less than a cent a pound to several cents per pound, with gloves and other "pure gum" articles commanding the higher prices. If the scrap is sorted by articles or grades of rubber, it should bring more than if sold in one bulk lot."

What hospital, or clinic for that matter, couldn't use an extra fund; say for instance a "Rubber Fund"? If there is no especial need for such a fund at present, then it could be used to buy Government Saving Stamps, or in time, even Baby Bonds, thereby increasing its aid to the hospital and to the nation.

Usually all that is needed to get doctors in private practice to bring their useless rubber to the hospital, and to get hospital employees to save all worn rubber goods passing through their hands, is to explain to them the Government's need for ruhber and to provide conveniently placed receptacles for "Salvage Rubher."

Boxes and cartons in which supplies and equipment were shipped to the hospital make excellent storage containers at no additional cost to the hospital.

It is surprising in how short a time a salable supply of rubber will accumulate in even a small hospital. The effort is negligible and the esprit de corps such a program stimulates is well worth it.

Margaret E. Thompson, R.N.

Miami, Fla.

*The article by Paul Mallon appeared in the Miami Daily News on Page 12-A, Wednesday, January 15, 1941.

DIRECTORY OF MEDICAL SPECIALISTS 1941 EDITION

Specialists eligible for listing in the forthcoming second edition of the Directory of Medical Specialists are urged to fill in and return promptly the questionnaires for biographic data now being mailed out by the publication office.

This Directory is the official publication of the Advisory Board for Medical Specialties, issued every two years, and listings are limited to those formally certified by any of the fifteen American Boards examining in the medical specialties. There is no charge for such listings.

The second edition is now being prepared, and will be ready for distribution early in February, 1942, with biographic, geographic, and alphabetic listings of all diplomates certified to January 1, 1942. It will include approximately 18,000 names.

The Directing Editor is Paul Titus, M. D., 1015 Highland Building, Pittsburgh, Pennsylvania, and the secretaries of the fifteen American Boards constitute the Editorial Board.

A SUPER-MICROSCOPE

Two years before the Lilly plant was founded, Edward Bausch completed the manufacture of the first microscope in the western hemisphere. It soon became an essential piece of laboratory apparatus for study and research in the pharmaceutical industry. But there have remained many living and non-living things that could not be seen—micro-organisms that cause diseases like measles, mumps, and poliomyelitis; and the structure of particles of matter of especial interest to physicists, chemists, and kindred scientists.

The reason that the optical microscope cannot reveal these smaller objects has been due to limitations of light itself. Further advances have now been made and electrons have come to man's aid in the extension of his vision. This wave length is but a minute fraction of a light wave, and with the electron microscope, direct magnifications of 10,000 to 30,000 are attained, and photographic enlargements to 100,000 and even 200,000 times are possible.

The Lilly Research Laboratories have been among the first to procure one of these new instruments. Undoubtedly the extension of vision made possible will result in truly greater advances in science and perhaps the further conquest of disease.

SUMMER DIAHHHEA IN BABIES

Caseo (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and corbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company, Evansville, Indiana.

The American Medical Association will hold its Ninety-Second Annual Session in Cleveland, Ohio, June 2-6, 1941.

PRACTICE FOR SALE

Augusta, Ga.—Active general practice with more than 3,000 records. Military and industrial center. Diathermy and most modern office equipment. Walnut furniture and chrome in waiting room. Steady income from beginning guaranteed by transferable appointments. Sell for inventory of equipment. Called to service. Write "T", care of The Journal.

Tuberculosis in the United States Army will be reported in accordance with the standards compiled by a group of specialists under the auspices of the National Tuberculosis Association and published by them under the title, "Diagnostic Standards and Classification of Tuberculosis." A copy of the booklet has been furnished each officer in the Army Medical School.

Tuberculosis, like all plagues, spreads most dangerously in the close contacts of the family. Resistance breaks down before a mass attack, and the steady bombardment of each other by husband and wives, parents and children, brothers and sisters is the best of all mechanisms for perpetuating the disease. People exposed to tuberculosis in their own homes are, roughly, ten times as likely to fall sick of it as are people in the population at large. "Plague On Us," by Geddes Smith, Commonwealth Fund, 1941.

In a large group of industrial workers the proportion of the cases of tuberculosis found in a minimal stage has almost trebled since 1929. Moderately advanced cases have decreased slightly and far advanced cases are about one-third the former proportion. This change is explained largely by the fact that in recent years fluoroscopic examinations of the chest (and roentgenograms when indicated) have been made prior to the employment and as part of the annual routine examinations of all employees of the Metropolitan Life Insurance Company. From Bulletin of Met. Life Ins. Co.

FOR SALE—X-RAY and OFFICE Practice—North Georgia industrial town, 6,500, two hospitals; rare opportunity for doctor with experience in technic and interpretation. Kelley-Koett equipment, accessories and complete office furnishings at sacrifice price. Ill health. Address "S" care of The Journal.

PHYSICIAN WANTED

Open position for physician in Mt. Jackson, Va., prosperous town and shipping center in the heart of Shenandoah Valley, 100 miles west of Washington. Excellent hospital facilities. No competitive condition. One doctor called permanent Government service. Other doctor in ill health; will cooperate. 98½ per cent white, Protestant population. Majority home owners. Economical living conditions. Better opportunity for the right man seldom found. Write J. J. Painter, Mayor, Mt. Jackson, Va.

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THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
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VOL. XXX | Atlanta, Georgia, June, 1941 | Number 6

GEORGIA'S MEDICAL PROBLEMS OF TODAY

JOB CALDWELL PATTERSON, M.D.
Cuthbert

Custom decrees that the President shall, during the annual session of this Association, address the members and guests on some subject of general interest. I have chosen as my subject "Georgia's Medical Problems of Today." Of course, it will not be possible for me to discuss with you all of Georgia's medical problems, but I shall attempt to mention those of immediate concern to every citizen of this State.

Before beginning the discussion, let me thank all of you members of the Association and the Woman's Auxiliary for your loyalty and cooperation during the past year. Many of you have labored valiantly to make success of our work. The year has been a busy and an interesting one for me, and I shall always cherish the privilege that was mine to serve a great organization; and I thank you again for giving me the opportunity to work with you. In my work old friendships have been renewed, new friendships have been made and support has been given me from every side, including that by public officials and lay agencies throughout Georgia; and by professional and lay individuals and agencies in many sections of this country.

To properly discuss the problems that confront us today, one must look to the background made by the march of medicine. That picture of medical progress in Georgia began more than two hundred years ago when white men settled on our eastern seaboard. Many people have contributed to the making of the health picture, but the medical profession has always taken the lead in the fight against disease. In the early days of our statehood organized boards of health were unknown, but now we consider them a necessary part of every community government. Knowledge regarding the spread of any disease must precede its control, and this knowledge has come slowly; but often the public fails to benefit by increased knowledge regarding the control of disease because public officials give little or no support to public health programs. Only fifty-five of our one hundred fifty-nine counties have approved public health units. One of our problems of today, then, is to increase the public health facilities in this State.

The public values most things in terms of dollars and cents. When the people of Georgia realize that public health is purchasable just the same as any other commodity, then we can anticipate even better results than have been attained. Listen to a brief review of the history of the Georgia Department of Public Health. The department was created by an Act of the Legislature in 1875. Two years later the department had to be abolished because of the failure to provide the necessary funds for its operation. Twenty-six more years passed before the department was reorganized. At that time, in 1903, the total appropriation for the operation of the department, including the salary for its distinguished director, the late Dr. H. F. Harris, was only $3,000. Dr. Harris used his own equipment and did creditable research work on pellagra, and effected control measures to prevent the spread of smallpox and yellow fever. During the next decade many facts were established regarding the spread of communicable diseases and control meas-

President's Address before the Ninety-Second Annual Session of the Medical Association of Georgia, Macon, May 15, 1941.

ures were instituted to prevent their spread. In 1914 the Ellis Health Bill was enacted into law. Glynn County was the first to adopt the program outlined in the Act, and Floyd County soon followed.

In 1917 the State Health Department was again reorganized. Additional funds were sought to extend its work. In 1920 the State allocated $90,590 to the department; and in 1938 the appropriation was increased to $500,000. Today 1,893,441 of our citizens have approved public health supervision, but the reduction in the number of deaths from diseases amenable to public health measures, shown in the following table, came with one generation and with limited personnel and other facilities for the control of disease:

Registration Area	Georgia 1903	Georgia 1920	Georgia 1939
Tuberculosis	188.9*	81.6	49.1
Typhoid Fever . . .	34.3	19.0	2.7
Smallpox	4.2	--	--
Diphtheria	31.8	13.8	3.0
Malaria	20.0	19.3	3.2

*Per 100,000 Population.

The infant mortality rate was 100 per 1,000 births in 1915; 88.3 in 1920 and 58.8 in 1939. The maternal mortality rate has been reduced from 9.3 in 1920 to 5.5 in 1939.

During the past twenty years 15 per cent less babies died; half as many mothers have died of childbed fever (puerperal sepsis).

Figures tabulated for 1940 show that 4,250 less Georgians died as a result of the following diseases than died in 1920: typhoid fever, malaria, measles, whooping cough, scarlet fever, diphtheria, dysentery, pellagra and tuberculosis.

Every year since 1900 medical science has put off death one-half year and, today, each baby born in Georgia may expect to live 62 years on an average; but the beneficent achievements of medical science have been followed by the appearance of new hazards, such as the degenerative diseases of old age. Heart disease and cancer now lead in the causes of death.

A decade or two ago a large percentage of physicians' practices consisted of the so-called epidemic diseases, most of which I have already mentioned. Today, due perhaps to the quickened pace of life, physicians have a new group of conditions to deal with, at least some of them are new. Psychiatry was an almost unknown specialty in medicine before World War 1, but today every state has its psychiatrists and neurologists to care for the ever-increasing number of people suffering from diseases affecting their minds and nervous systems. High blood pressure (hypertension) has come with modern civilization and has exacted its toll of lives. Indeed, it would appear that some of the gains achieved by preventive medicine for the control of communicable diseases have been offset by an increased mortality rate during the past twenty years (4,284 deaths) from apoplexy (cerebral hemorrhage) and heart disease.

One of the challenges to Georgia medicine is nutritional diseases. Nutrition, which includes a balanced diet with the necessary vitamins, is an important factor in a high percentage of the illnesses suffered by our people. Corrective measures directed toward this great problem must be coordinated by mutually interested agencies. Such plans as may be worked out must include education of all of the people regarding what foods to eat, the importance of diversifying food intake and food crops; and the necessity of building up the soil to produce proper food crops of certain foods.

A national disgrace in which this State shares is the enormous number of people who lose their lives and productive ability, if they survive injury, by automobile accidents. In addition to the treatment of such injuries, the medical profession, through its civic obligation, is contributing to an educational campaign which seeks to prevent a large per cent of such tragedies.

Surgical practice has also changed. Formerly most of the surgery was done for altered structure, inflammatory conditions and war wounds, but now surgery is done to restore function. Neurosurgery, tendon surgery, lung surgery, blood vessel surgery, kinetic surgery and gastric surgery are commonplace terms and procedures in every hospital. In other words, the pendu-

lum of surgical attack has swung from attack on gross anatomic structural change to emphasis on the control, through surgery, of pathologic-physiology. Surgery has advanced to such extent that every cavity of the body has been successfully invaded, including the heart.

Georgia is becoming more and more an industrial state. The hazards inherent in industrial environments are many. In addition to the usual injuries which result from working in such places, certain occupational diseases are found: diseases affecting the blood, the lungs, the nervous system and the skin. These injuries and diseases, together with the problems offered by automobile accidents, challenge the ingenuity of each person interested in human welfare.

A year ago, at the Savannah Session of this Association, a symposium on the problems of medical care in Georgia was held. Participating in that discussion were physicians experienced in public health work, in hospital administration, in medical economics and in medical practice. That symposium was an effort of this Association to point out some of our problems and begin work to further effect their solution. It was agreed by those present at that meeting that our public health facilities were inadequate, that more hospitals were needed in the State, that there was a scarcity of physicians in the State, and that the furnishing of good medical care required the combined cooperative and understanding effort of a group of individuals as represented by physicians, dentists, nurses, pharmacists, sociologists, hospital administrators, industrialists, the public at large, including public officials; and the individual who needs medical care. At the concluding business meeting of the Association it was proposed that this Association sponsor a conference to be composed of such individuals with the view of improving medical care in Georgia. However, before the conference could be arranged our country embarked upon the National Defense Program so well known to all of us today, which, with the turmoil caused by the national election during the past summer and autumn, made it inadvisable to proceed.

The National Defense Program has amplified some of our problems and made them more serious. The Army, the Navy and the Public Health Service must have additional medical personnel to carry on their work. There has been a shortage of physicians in our State for sometime. As a matter of fact, before the defense program was instituted studies regarding the number and distribution of Georgia physicians showed that in the rural areas there was one physician for 1,800 people; in the urban areas one physician for 1,100 people, and for the State as a whole one physician for 1,560 people. For the United States the ratio was one physician for 785 people. The demands by the public services for physicians have worked hardships on many areas of our State. Already about 150 of our young physicians have been admitted to these governmental services, and more will soon be called. Approximately 450 of our doctors are now serving in some capacity in the Medical Preparedness Program and the Selective Service Program in our State. The time is not far distant when probably every active physician in Georgia will be engaged in some specific work aiding the Medical Preparedness Program of the Nation.

All of this, then, has precipitated additional comment and effort directed toward the education of more students in medicine. At the recent session of the General Assembly of Georgia, a bill was passed providing medical scholarships to the University of Georgia School of Medicine. Each scholarship had a money value of $1,000, a loan from the State to help defray the expenses of medical education for the four-year term at the University. Students qualifying for loans would be accepted one from each of the fifty-two senatorial districts of the State, and after each prospective physician had agreed to return to some rural area of Georgia and practice medicine there for at least four years. The Governor vetoed the bill.

Medical education is one of our No. 1 problems. No one desires to see the high standards sacrificed that now obtain for

medical education and yet all of us should know that we cannot expect highly trained young physicians to return to our rural districts and become enthusiastic over some of the conditions there: the lack of hospital facilities, the lack of adequate help from many sources, and the lack of economic security. True, some of these young physicians went to medical school from the very areas that most need them as practicing physicians, but they are human beings and most of them desire to live in and work in communities where opportunities are given for advancement. The scholarship bill for medical students, sponsored by the Board of Regents of the University System, had my support as well as the support of the Committee on Public Policy and Legislation of this Association. The plan proposed in the bill may not be the best one available, but it could well be the beginning of a program to educate more physicians for practice in the rural areas of our State, which would contribute to the welfare of our people. Such young physicians could, with assistance from their respective counties and municipalities, build small hospitals and equip them. Counties and municipalities should contribute to the upkeep of such hospitals. Finally, as the program of the State Department of Public Health is enlarged, such county-city hospitals can serve in a cooperative capacity with county public health units.

A pressing problem of medicine today concerns the tendency toward the provision of medical care through governmental and/or corporate agencies. The urge in this direction has probably been augmented because of the fact that medicine is by its very nature individualistic in its application. Its success is dependent on the retention of the physician-patient relationship. The institution of medicine has always been quiet and self-effacing, but great collective institutions have grown up. To these agencies the relation of the patient is that of a beneficiary, or customer, with the doctor relegated to a secondary position. The policies, whether so designed or not, lead to the exploitation of physicians, and by the same token to the lowering of the quality of medical care. The people, therefore, must be made to realize that the medical profession is the bulwark which stands between them and those agencies which would lower the standards of medical care. In addition to rendering good medical service to all of the people, we must carry the story of medicine, with all of its achievements through the countless years, to all of the people. Moreover, it is necessary that we continue the initiative and leadership through which many grave problems of the past have been solved and through which these newer obstacles will surely be resolved in the public interest. Medicine has never been a static profession. The immediate medical problems in our State offer a stimulating challenge to all of us and with the cooperation of our people none is insurmountable.

PRESENTATION OF GOLD KEY TO THE RETIRING PRESIDENT, DR. J. C. PATTERSON

STEVE P. KENYON, M.D.
Dawson

Since childhood I have believed that one of the greatest honors a Georgian could attain was to be a member, even in the rear ranks, of the Medical Association of Georgia. But the greatest honor that might be attained is to so live, so work, and so serve as to be called to the presidency of this organization by the unanimous vote of its members. Therefore, it is a rare privilege and a happy one to have an active part in this program in which we publicly acknowledge our confidence, love, and everlasting esteem for our retiring president: a ceremony in which we present a gold key, symbolic of the things that we feel for him but are unable to say because of human frailties. The man whom we honor tonight is my neighbor and friend, a man whose friendship I prize as one of the great gifts of my life.

It has been my privilege to study his character from almost every human con-

Presentation address before the Medical Association of Georgia, Macon, May 14, 1941.

tact. On the golf course, or on the bird field, at the card table, or in a fishing boat, in his own home, or in the medical assembly halls, by the bedside of the indigent patient, or in a crisis of the operating room, he is the same smiling, unselfish friend whose one ambition is to be a better doctor that he might better serve his fellow man. In his own county and district, he is not only the physician and surgeon, but he is the constant adviser, friend, and helper to anyone from the lowliest Negro to the outstanding lawyer or doctor. He is the true Southern gentleman; honest because of heredity and training; humble because he is big; true and loyal because he possesses ambition to serve.

It was but natural that he should be elevated to the presidency of this great body of men. And we, who really know him, felt secure and grateful in the knowledge that organized medicine in Georgia would continue to grow and develop in those ideals and precepts which we cherish for it. In these hours of uncertainty and unrest; in these days when our homes, our religious teachings, and the very foundations of our government are threatened by enemies at home and abroad; it is the private physician, as represented by our President, who will not only preserve the health of the individual and the community, but will do whatever else is necessary for the preservation of the Union.

My time is limited, but certainly this presentation would not be complete without briefly mentioning some of the most important events in the eventful life of this man.

Stewart County, Georgia, with its red hills and magnificent caves, seems to have endowed its sons with the spirit of honesty and the iron of determination. It has furnished the State with many illustrious sons and daughters. One of these was born to John Thomas Patterson and Elizabeth Humber Patterson, at Lumpkin, Georgia, June 6, 1892. He was given the name of Job Caldwell. He attended the public schools of his home town and graduated with honors in 1909.

Evidently activated by the desire to follow in the footsteps of a noble doctor uncle, he matriculated at the Atlanta College of Physicians and Surgeons, now the Medical Department of Emory University, in 1909. In 1913, he graduated from that institution with the degree of Doctor of Medicine and, with his medical diploma, he received an honorary certificate. Continuing his studies, he served as intern and resident at Grady Hospital from 1913 to 1916.

Like the true American youth, he felt the call of his country and during the fall of 1916, he was with Pershing in Mexico as a medical officer in the United States Army. In 1917, he joined the 31st Division and although just 25 years old, he was sent to France as Director of Field Hospitals, with the rank of Major. Following the Armistice he did post-graduate study at the Universite D'Aix-Marseille in surgery, gynecology, and pathologic anatomy.

It is almost an axiom that to be big and fine, a man must have a wife of the same type. J. C. is no exception to this rule. So after receiving an honorable discharge from the Army in 1919, he returned to the girl of his dreams, Marie King. They were married at Columbus, Georgia, Dec. 9, 1919, and to them has been born a daughter, Ann.

Cuthbert, Georgia, in Randolph County, was the fortunate city which this well-trained young doctor and his charming wife chose to make their home. They located there and Dr. Patterson, in partnership with his uncle, Dr. Fred Patterson, established the Patterson Hospital. At the death of his uncle, he became director and owner of this institution which has rendered invaluable service to the people of southwest Georgia and eastern Alabama during all these years. This institution has done much to raise the standards of medicine and the medical profession in its locality. Through the influence and teachings of its clinics, lectures, and post-graduate courses, many doctors in southwest Georgia have been fired with an ambition to keep abreast of medical knowledge and science. Always in the background, but with his hand on the throttle, has been our quiet and unassuming President. Yet, in spite of his reticence,

organized medicine soon recognized his worth. He has been President and Secretary of the Randolph County Medical Society; President of the Third District Medical Society; Councilor of the Medical Association of Georgia for eight years; a member of the Publication Committee of the Journal of the State Association; and chairman of many important State committees. He is a Fellow of the American College of Surgeons.

In addition to his private practice and various medical activities, he has also been a leader in civic, educational, and fraternal affairs of his community. He is a member of the Phi Chi Medical Fraternity, is a 32nd Degree Mason and a member of the Shrine. He is a member and Past President of the Cuthbert Rotary Club, member of the Cuthbert School Board, and trustee of Andrew College. In 1939, he was unanimously chosen President-Elect of the Medical Association of Georgia, and now his term of service is almost complete. He has worked faithfully and loyally for organized medicine, with particular emphasis to raise the standards of the general practitioner and to ease the economic burden of the aged doctors in their waning years.

Dr. Patterson, it is a privileged honor to represent the Medical Association of Georgia in presenting to you this gold key, on which is engraved the seal of this Association and your name. Although its intrinsic value is small, yet it is symbolic of our gratitude for your service, our respect for your ability, our love and affection for you, and our prayers for your everlasting happiness. This is the key to our hearts.

SWELLING OF MOUTH DUE TO MANGO

Two cases of swelling and inflammation around the mouth caused by eating mango fruit are cited by Samuel J. Zakon, M.D., Chicago, in *The Journal of the American Medical Association* for Nov. 11.

The condition is attributed to a substance contained in the peel of the fruit before ripening which protects it from insects. "This substance," the author explains, "remains so active in some varieties, even after the fruit has ripened, as to affect some people eating the fruit with what is known as 'mango poisoning.'

"With the increasing use of this fruit in the daily diet, the mango should be seriously considered as a causative factor in acute skin inflammation of the face."

BRONCHOGRAPHY IN CHEST DISEASES

S. C. LYNN, M.D.
Savannah

A thorough conception of a disease is a prerequisite in its intelligent management, but forming such a conception is impossible in chest diseases without the help of x-ray. The proper evaluation of a chest film renders insight clinically into the disease process more clearly than any other single procedure at our disposal. Roentgen's ray increased in accuracy our diagnostic skill 95 per cent over Laenec's ingenious method of physical examination. A plain roentgenogram, however, has many shortcomings, even with the help of stereoscopic views, exposure at different angles, or Bucky or grid pictures. Many films with abnormal shadows as well as those without are often puzzling and unaccountable.

A bronchogram overcomes some of these shortcomings. It is an x-ray obtained with the introduction of opaque oil into the respiratory tract. Iodochlorol, (lipiodol in France, iodepene in Germany, neophydrial in England, differ in certain details), which is peanut oil containing 25 per cent iodine, and 7.5 per cent chlorine, is the substance most commonly used in this country. The oil being opaque to the roentgen ray, the visualization of the entire tracheobronchial tree becomes possible, revealing the bronchial structure normally or pathologically.

Since the introduction of this method by Sicard and Forestier in 1921, it has contributed a great deal to the understanding of many diseases of the chest, namely, tuberculosis, lung abscess, bronchiectasis, primary carcinoma, bronchial asthma, obscure lung diseases; and in the field of thoracic surgery. The present study is based upon 90 cases of bronchography performed at Norfolk County Hospital, South Braintree, Massachusetts and private cases in Savannah, Georgia.

The iodized oil is inert and remarkably stable in the respiratory tract, but it is de-

Read before the Medical Association of Georgia, Savannah, April 26, 1940.

Fig. 1A. Normal right A.P. bronchogram of Miss D.B., age 22, student nurse.

Fig. 1B. Right lateral bronchogram of same.

composed by the action of the gastric juice when introduced into the stomach cavity through faulty technic or by accident. It has been the cause of fatal reactions of iodism reported in literature.[1 2]. Besides the danger of iodism, a word of caution is necessary against the indiscriminate use of this procedure in acutely ill patients, in certain cases of tuberculosis, especially the exudative type, some cardiorenal conditions, aneurysms, and in debilitated persons for obvious reasons.

Anatomic Consideration

To facilitate the interpretation of a bronchogram some of the pertinent points concerning the anatomy of the respiratory tract are here recapitulated.

The laryngeal cavity opens into the superior mediastinum and bifurcates at the level of the fifth thoracic vertebra into the right and left bronchi, which proceed toward the corresponding hilus. The right bronchus, according to Cunningham,[3] is wider than the left in the ratio of 100: 78.4 and as it passes toward the hilus of the right lung, it takes a more vertical course than the left; consequently, it is easier for iodized oil to gravitate into the right lower bronchus.

The consideration of the sub-division of the main bronchus into finer branches is based upon the enlightening studies of Nelson,[4] Neil[5] and others. For the sake of clarity rather than following their accurate description, the main bronchus can be looked upon as having three main branches of upper, middle and lower lobes. The upper and middle lobes, which are separate in the right, are fused in the left to form the upper lobe.

The upper lobe bronchi divide into four component lobular branches: subapical, apical, pectoral, and axillary, terms which are self-explanatory in location. The middle lobe bronchi run forward, outward and downward and divide into two component lobular branches of anterior and axillary. Lower lobe bronchi which are really the extension of the main bronchi downward divide into six component lobular branches of apical, cardiac, subapical, anterior basilar, axillary basilar and posterior basilar (Figs. 1A, 1B, 2, 3, and 4).

The term lobule is used to denote a definite broncho-pulmonary entity which is supplied by an individual respective bronchus. Each lobule with its functional unit can easily be demonstrated by inflating it individually through the bronchus which supplies it on a well preserved cadaver lung, as shown by Neil.

Technic

Many methods are in use to instill iodized oil into the tracheobronchial tree.

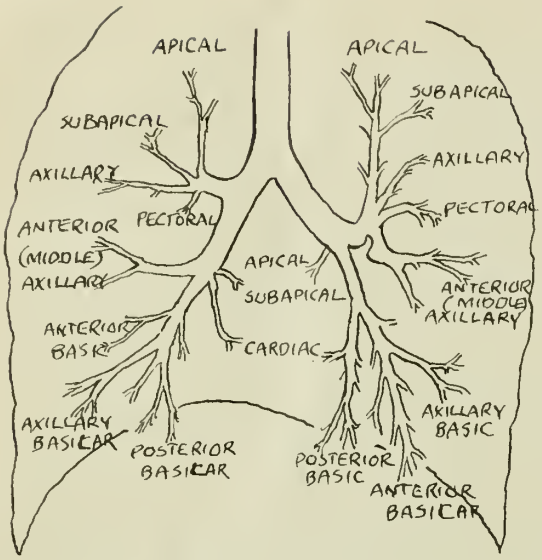

Fig. 2. Diagram based upon normal bronchogram of Miss D.B., interpretation according to Nelson and Neil.

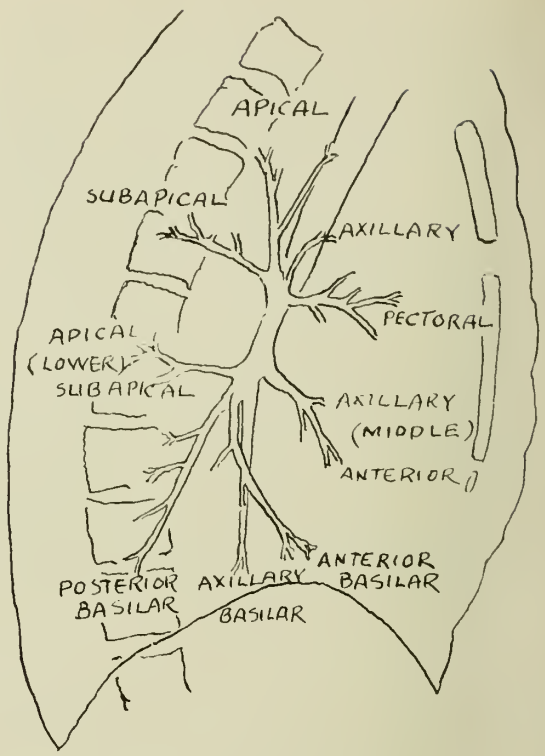

Fig. 3. Right lateral.

Some of these are cricothyroid puncture, bronchoscopic, supraglottic, pernasal, transglottic and intubation, any one of which may be employed with success in the hands of an operator experienced and efficient in that method. Herewith is given a description of the technic I use, which can be termed the supraglottic gravity method.

Both physical and mental preparation of the patient is not to be taken lightly because excitement and undue tenseness inevitably result in an unsatisfactory bronchogram. It is advisable to give the patient a preliminary explanation of the procedure, and to make him feel as nearly at ease as possible. One one-half grains of phenobarbital given one hour prior to the cocainization of the throat is a rational measure to induce sedation as well as to supply a specific antidote to the cocain toxicity.

Ten per cent cocain spray into the pharynx induces immediate surface anesthesia. Pontocain 2 per cent applied to the pharynx, soft palate and fossas with swabs produces a more lasting effect, although the latter causes more secretions. These applications are repeated until the patient loses the gagging reflex. It adds much to the comfort of the patient and aids the easy flow of oil by encouraging him to cough up any secretions and discouraging him from swallowing during this process.

The patient, still in sitting position, is instructed to grasp his tongue with a piece of gauze between the thumb and forefinger of the hand opposite the side to be filled. This maneuver keeps the arm from interfering with the fluoroscopic view while following the course of the oil in the bronchial tree and guiding it into the desired portions of the lung. He is then told to pull his tongue forward as far as possible.

Actual instillation is manipulated by use of a Luer syringe and an ordinary soft catheter 14 Fr., or a curved cannula especially designed for this purpose. The tip of the cannula is placed at the supraglottic region and the oil, which is warmed to body temperature, is slowly administered to avoid flooding into the mouth cavity and to avoid the choking sensation.

On the whole, filling of the lower lobe is simple. Instillation of 6 to 10 cc. of the oil, according to the size of the chest, having the patient leaning toward the side to be filled, causes gravitation into that area. Upper and middle lobe filling, however, require more effort, skill and experience.

Because of the necessity of viewing lateral pictures, it is advisable to fill one lung at a time. If both are filled at one sitting,

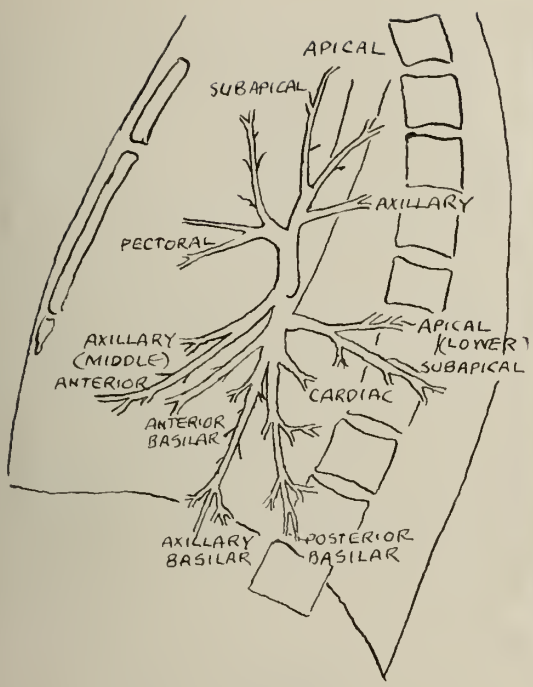

Fig. 4. Left lateral.

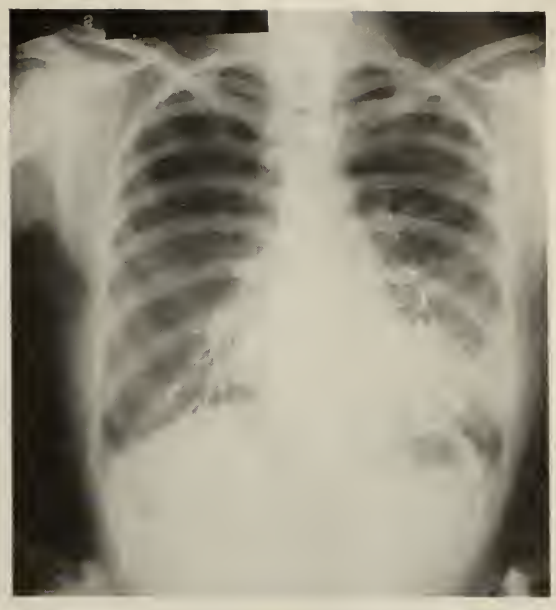

Fig. 5. Bronchogram showing cylindrical bronchiectasis of both lower lobes.

bronchial shadows are superimposed, which impair clear visualization.

Bronchiectasis

The pathology in bronchiectasis is dilation of the bronchial tubes with a tendency toward their destruction, regardless of the etiology, whether from infection, foreign body, chronic cough or congenital.

The clinical symptoms and signs presented by these patients are not uniform. Many enjoy apparent health without any symptoms; some have hemorrhage in so-called dry ectatics;[6] still many more suffer extremely with chronic cough and expectoration.

If the disease is located in an upper lobe with the advantage of natural drainige, if it is free from the complication of secondary infection, or if it is in an early stage, the symptoms experienced by the patient are negligible.

The familiar ectatics, however, are those in the advanced stages with extensive involvement, especially of the lower lobes. In these there lacks natural drainage by gravitation and the dilated tubes lose their normal functions of elimination. As a result, a large amount of normal and abnormal secretions accumulate in the adynamic tubes, which act as veritable "cesspools." The putrid bacterial invasion gives the sputum a foul odor and the absorbtion of this material renders the patient toxic. He suffers a harrassing cough, an attempt on the part of the lungs to throw off the offending substance, which he is unable to do except at so-called emptying times when it overflows. When this time arrives the patient must expectorate regardless of his surroundings, involving predicaments that are embarrassing.

A bronchogram with the contrast media showing the tubes with dilation is by far the most satisfactory diagnostic method in this disease. It reveals the nature, location, and extent of the involvement, together with forms of ectasia, whether they are saccular or cylindrical. The first according to Sauerbruch,[7] is the congenital form and the latter, the acquired. It is unjustifiable to make a diagnosis of either existing or non-existing bronchiectasis on a plain roentgenogram or physical examination alone.

Report of Cases

Case 1. Miss E. H., a stenographer, 22 years of age, well nourished and appearing healthy came to our Chest Diagnosis Clinic complaining of chronic cough and expectoration of large amount of sputum though not foul. There were many fine moist rales over both bases, anterior and posterior according to physical examination. Roentgenogram of her chest showed abnormal densities around the lower trunk shadows

Fig. 6A. Roentgenogram showing disseminated fibrosis.

Fig. 6B. Saccular bronchiectasis shown most clearly in lateral bronchogram.

of both lower lobes. As a definite diagnosis could not be obtained on this plain film, bronchographic studies were made and obtained tell-tale film (Fig. 5) showing cylindrical bronchiectasis of both lower lobes.

The possibility of the existence of bronchiectasis in a patient with a chronic cough should be one of the first considerations. The fact that a patient appears perfectly sound and well should not mislead anyone. He should be thoroughly checked including bronchography before he becomes bed-ridden.

Case 2. H. S., 32 years of age, unemployed, undernourished and sickly appearing, entered the hospital complaining of cough, severe in nature and long in duration. As he stated, he had suffered a cough all his life. Physical examination revealed many coarse, crackling, moist rales over the entire chest, especially marked over bases. Plain chest film showed disseminated fibrosis throughout both lung fields. (Fig. 6A). Bronchography of right and left revealed grape bunch like saccular bronchiectasis of both lungs. (Fig. 6B).

Bronchial Asthma

Allergy is considered the main etiologic factor in bronchial asthma but all asthmatic and asthmatoid attacks cannot satisfactorily be explained on the basis of allergic spasms and eosinophilic infiltrations alone. This is true especially in long standing cases where there exist secondary degenerative changes in the respiratory system which involve both the lung parenchyma and bronchial tubes. The most commonly encountered changes found are the emphysemas in association with chronic bronchitis and bronchiolitis wherein the latter structures lose their cilia as pointed out by Moore and Moffat.[8]

Dyspnea is frequent in emphysema due to the increased volume of residual air, decreased vital capacity, and diminished alveolar surface, the exchange between the oxygen and the carbon dioxide is to a less or greater degree not satisfactory to meet the physiologic demand of the respiratory function. Cough is a common symptom in trying to clear the respiratory tract, but due to the bronchitis and the degenerative mucosa, the secretion, both normal and abnormal, is not eliminated freely and involuntarily. As the secretions remain in the respiratory tract, their viscosity undergoes an alteration becoming tenacious and forming plugs. Jackson and Jackson have found by direct endoscopy during asthmatic attacks that "Although the bronchial lumen was narrowed only as much as would be with the same degree of cough in any patient not subject to asthma, it was filled with a tenacious bubbling secretion."[8] These plugs further aggrevate respiratory functions by interfering with the free flow of air and secretions through air passages. Removing such interference therefore becomes a logical measure in the care of these cases.

It is not at all a mere coincidence that our experience coincides with that of Steinberg and Anderson[9 10] in that the elimination of

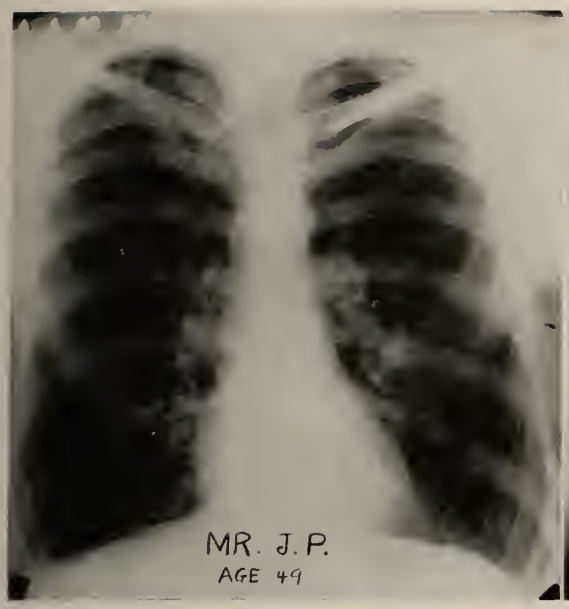

Fig. 7A. Plain roentgenogram showing generalized exaggeration of lung markings throughout lung field.

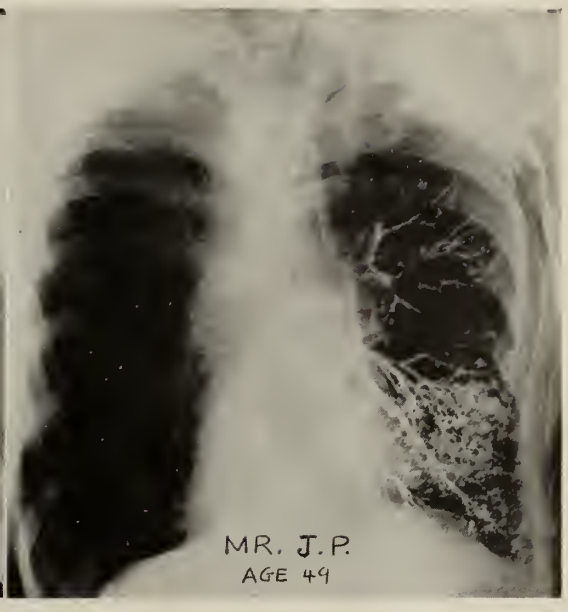

Fig. 7B. Bronchogram showing normal bronchial tree.

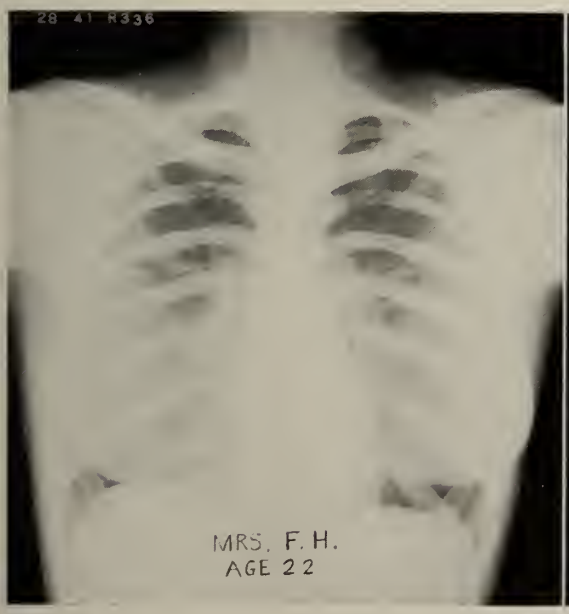

Fig. 8A. Plain roentgenogram showing no pathologic changes.

Fig. 8B. Left lateral bronchogram showing small bronchiectatic area.

the plugs by the frequent instillation of iodized oil is more effective and lasting in treating these cases than antispasmodics.

Besides the question of degenerative pathology, bronchiectasis not infrequently coexists with or complicates the asthmatic condition. In the study of 100 asthmatic cases with bronchography, Balyeat and Seyler[11] have found 28 co-existing bronchiectasis. Seupe[12] reports a similar finding from necropsy series. Twenty-eight cannot be looked upon as a small percentage in view of the fact that asthma runs a chronic and aggravating course and bronchiectasis is in itself a serious disease. Without the knowledge of such co-existing conditions, treatment necessarily would become hazardous. From this consideration alone, bronchography should have a place in the thorough study of a suspected asthmatic.

Fig. 9A. Plain roentgenogram showing typical triangular lobular atelectasis caused by occluding tumor.

Fig. 9B. Bronchogram showing oil blocked by tumor.

Case 3. J. P., 49 years of age, oxygen plant operator, undernourished, came to the office complaining of having "asthma" of fifteen years duration. It was associated with a cough and dyspnea. He stated that the symptoms were so severe that he felt as though he never slept through a single night during all these years. He had used a large amount of ephedrine and some adrenalin with very little relief from the drugs. Physical examination revealed many fine, moist rales and definite musical rales over his entire chest. Intercostal spaces were widened especially in the upper thorax. Chest film showed exaggeration of lung markings throughout both lung fields. (Fig. 7A). Allergen skin tests for extracts of various plants, dust, hair, feathers, and foodstuffs revealed that he was sensitive to 21 substances out of 110. He was instructed to avoid coming in contact with all positive substances as much as possible. The patient believes this measure helps him somewhat.

Bronchography did not reveal any co-existing bronchiectasis (Fig. 7B) but the process of oil instillation relieved the symptoms by removing plugs immediately and phenomenally. This method was continued as a therapeutic measure and when given relief lasted variously from two months to six months.

Case 4. Mrs. F. H., a well nourished housewife, 22 years of age, came to the office complaining of having suffered since childhood "asthmatic attacks" which were associated with chronic cough. Physical examination revealed musical rales over her entire chest, otherwise normal. Blood count showed hemoglobin 60 per cent (hypochromic anemia) and eosinophil 1 per cent. Allergen skin tests showed ten positives out of thirty-five food extracts. Plain chest roentgenogram (Fig. 8A) was non-contributory. Bronchograms of her right lung also showed a normal appearing bronchial tree. Left lateral bronchogram, however, brought out a small bronchiectatic area about the size of a pea (Fig. 8B).

In this case, although the diagnosis of bronchial asthma was not abandoned, because of the wheezing rales heard over the chest, and also because of positive allergen tests, the new finding was given a proper place in a more complete diagnosis. The co-existing bronchiectasis, small in involvement but causing most of the symptoms, was thus realized by bronchographic studies and the case is now better understood than at any other time.

PRIMARY CARCINOMA OF LUNG

A thorough clinical study on the subject of primary carcinoma of the lung made by Overholt and Rumel[13] and some of their instructive points are at present reconsidered.

Regardless of the type of tumor, whether squamous carcimona, adenocarcinoma, undifferentiated round cell, spindle cell, oat cell type, or a combination of these, it originates from a single parent cell located in the basal layer of the bronchial epithelium, whether it is in the stem bronchi or in the peripheral bronchioles. Symptoms and signs, therefore, presented by these tumors are essentially the same.

As the tumor grows, the affected lumen of the bronchus is occluded partially, of course, at the beginning but soon completely, causing either lobar or lobular atelectasis, depending upon ultimate distribution of the affected bronchus. Prior to the complete blockage of the affected bronchus, the most noticeable symptoms are cough and

Fig. 10A. Plain roentgenogram with hard densities in upper right lung field which showed no change in ten years.

Fig. 10B. Bronchogram showing extensive ectatic cavitations in right upper lobe.

Fig. 11A. Right bronchogram showing cylindrical bronchiectasis of lower lobe and 3 cm. cavity in second interspace anteriorly in left.

Fig. 11B. Left bronchogram showing no definite ectasia though lower trunk is pulled upward. Note same cavity as 11A.

expectoration which are due to irritation of the mucosa by the growing tumor. The sputum is blood-tinged because of the tendency of tumor tissue to disintegrate and it becomes purulent if the tissue becomes infected.

With the complete occlusion of the bronchus the symptomalogy is complicated by atelectasis which occurs throughout the lung tissue distal to the blockage. If the atelectasis is large enough, the patient complains of dyspnea because there is decrease in lung volume and mediastinal shift to the affected side.

Due to the atelectasis, more than the tumor itself which is only seen in advanced cases, a roentgenogram obtained at this time may lead to the true nature of the lesion present. A bronchogram showing a blockage in the bronchus to the flow of oil

Fig. 12A. Plain roentgenogram showing 3 stages thoracoplasties with heart and mediastinum deviated to left. Left lung field obscured.

Fig. 12B. Bronchogram showing ectatic cavities under left thoracoplasty. Right lower bronchial tree appears normal.

indicates more strongly a tumor growth that is occluding.

Case 5. Mr. J. M., a 50 year old barber, had a cough of six month's duration and occasionally expectorated blood tinged sputum. Cough medicines were ineffective. He lost 15 pounds in weight during that period. Following a chest film elsewhere four months previously, he was told that he had unresolved pneumonia. We also made a chest film when he came to us and found a typical lobular atelectasis caused by an occluding tumor (Fig. 9A). A bronchogram followed which showed a definite blockage (Fig. 9B). On the strength of history, physical examination, roentgenogram and the bronchography, an exploratory thoracotomy was performed and there was found a metastatic involvement of mediastinal glands. Pneumonectomy was abandoned as too late.

This case illustrates the point that dismissing a patient with the diagnosis of unresolved pneumonia without a thorough study is a dangerous practice.

TUBERCULOSIS

The progress made during the last decade in the field of tuberculosis stands out as monumental in the history of medicine. Diagnostic and therapeutic skills have reached their new peak. In spite of all these achievements, clinical and pathologic manifestations of tuberculosis remain complex. Comprehensive diagnosis and rational follow-up of any tuberculous case entails the utilization of every proven diagnostic method at our command, numerous as they may be. History, physical examination, skin tests, sputum test, including Gaffky counts, x-ray, fluoroscopy, red cell sedimentation rate, differential count, vital capacity, animal inoculation and bronchoscopy are all valuable procedures in their proper place, and there is no other method of substitution or short cut.

Bronchography is another procedure which deserves a place in our diagnostic armamentarium. Frequently, it is the only means by which a moot point in a diagnosis can be settled. Forty-five of the series studied were tuberculous and at one time or another have shown positive sputum. We have had no mishap with the procedure in these cases, carefully selected of course, except a slight and fleeting febrile reaction in two cases.

Some applications of this method in tuberculosis are pointed out briefly as follows:

First: *To differentiate tuberculosis from other apical lesions.*

Case 6. S. P., 45 years of age, a fruit peddler, well nourished and heavy set, entered the hospital for the second time in ten years with the same complaint of "cough." Physical examination was non-contributory. Chest films taken ten years apart, showing hard, irregular densities in the upper half of right lung field were almost identical. On the strength of the x-ray findings, he had been diagnosed as tuberculous ten years previously. Upon the second admittance, the question arose

as to the correctness of the previous diagnosis because it is unusual for such extensive tuberculous involvement as shown in these films (Fig. 10A) not to show some change in ten years in the character or location of the densities. either progressive or regressive. Neither was it probable that his sputum and gastric content would persistently remain negative including animal inoculation, nor his red cell sedimentation rate (Cutler) would remain consistently at 10 or less in one hour while he was under observation. We felt further study was imperative to make diagnosis and bronchographies were suggested. They cleared the situation by revealing an extensive bronchiectatic involvement of the right upper lobe (Fig. 10B).

It was understandable that the patient enjoyed apparent health because of the advantageous location of the disease which afforded the necessary natural drainage.

Second: *To find the source of sputum and cough besides cavitation.*

Case 7. C. H., a veteran, 41 years of age, fairly well nourished, had been in and out of four different hospitals over a period of fourteen years with "tuberculosis."

His sputum was consistently positive for tubercle bacilli and a chest roentgenogram showed a thin walled cavity measuring 3 cm. in diameter in the second interspace anteriorly (Figs. 11A and 11B). Physical examination revealed many coarse moist rales over his entire chest. He suffered, however, cough and expectoration out of proportion to that which might be expected from such a cavity, his cough being persistent and nerve-racking and expectoration enormous in amount. After one month's observation, bronchographic investigation was recommended and co-existing bronchiectasis which was the source of most of his symptoms was located in the right lower lobe (Figs. 11A and 11B).

Treatment for this condition was instituted following which the patient declared he felt relieved for the first time during his entire period of hospitalization.

Third: *To visualize pathology under thoracoplasty.*

Case 8. H. H., 33 years of age, ex-salesman, undernourished and suffering from pulmonary tuberculosis, had been hospitalized for three years and two months. Eventually he was discharged as arrested following left thoracoplasties. His sputum became negative and his clinical condition improved. Two months later, however, he was readmitted complaining of dyspnea, severe cough, and profuse expectoration. Physical signs in the chest were many, including operative scars, absent breath sounds, and many audible gurgling rales in the left and friction rubs over both sides. Chest film showed no appreciable disease in the right lung. Left lung field was completely obscured by thoracoplasty (Fig. 12A). The heart and mediastinum were diviated to the left. Sputum was still negative. On a bronchographic study there was found a new angle in this case by the revealing of large unclosed ectatic areas under thoracoplasty (Fig. 12B). Lobectomy of left lower lobe followed. The patient was discharged from the hospital after a satisfactory recovery from the latter operation.

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DUODENAL ULCER IN CHILDREN

Report of Case

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Duodenal ulcer in children is comparatively rare. However, I believe that it occurs more frequently than the literature indicates. The diagnosis is overlooked, or is not made until adult life, although the symptoms were present during childhood.

The most important single factor in diagnosis is the recognition of the fact that duodenal ulcers do exist in children. Many cases of so-called "umbilical colics" are in reality peptic ulcers. You do not have the typical ulcer syndrome in children. In over one-third of the recorded cases no symptoms suggestive of the condition were present. Epigastric pain is the outstanding symptom although it can not be localized except in the older child. Night pain is common. Nausea, vomiting and low grade fever may be present simulating appendicitis. Anorexia and obstinate constipation is the rule. Usually ulcer is not suspected until hemorrhage occurs. An x-ray is then made to confirm the diagnosis. The gastric

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acidity is of no help as it is usually normal.

Toro[1] of Germany says ulcers as a result of embolus or congestion are not uncommon in infancy. It is a well recognized fact that many cases of melena neonatorum are due to duodenal ulcer and that acute duodenal ulcers occur in the newborn:[2] In autopsies of 1100 cases of infants up to one year of age, 1.8 per cent showed an ulcer scar. Proctor[3] at Mayo Clinic found that 42 out of 2000, or 2.1 per cent of adults with peptic ulcer had their symptoms dating from childhood.

In one series of 700 cases of peptic ulcer, only 6 cases were in children.[4] These were all male. Usually the ratio is about 4 males to 1 female. The age of onset of symptoms was between 6 and 10 years of age. The literature contains only about 100 authenticated cases of chronic ulcer in ages 2-14, duodenal and pyloric predominating over gastric. The greater incidence in the past 20 years is due to more careful supervision of children's health.

Perforation occurred in only 14 per cent of the reported cases in the last 10 years; about the same as for adults. Davison and Rudder recently reviewed 155 cases of perforated peptic ulcer occurring at Grady Hospital from 1925 to 1937. There were no patients under 15 years of age. In this same paper[5] they reported two cases of Dr. L. J. Netto, of West Palm Beach, of perforated peptic ulcer occurring in infants. Both were boys. One was 5 weeks of age and the other was 4 months. Death from hemorrhage or perforation was an infrequent occurrence. There is only a reported mortality of 1.5 per cent from hemorrhage in children.[6]

Speaking of ulcers in general, the average duration of symptoms before diagnosis was 10 years. The average age of the patient at diagnosis was 33 years. The incidence of stomach and duodenal ulcers found at autopsy by Robertson and Hargis[7] in 2,000 postmortem examinations was 11.85 per cent. Hurst and Stewart[8] reported ulcer scars in 5.75 per cent of necropsies. In only 38 per cent of ulcers found at autopsy, had a previous diagnosis of ulcer been made.[7] The capacity of many ulcers to heal permanently is inherently great. However, the earlier the diagnosis, the easier the cure. An ulcer diagnosed in a child would be more likely to be acute than chronic. The more chronic the lesion, the less likely would be healing and permanent cure by medical treatment.

The etiology of peptic ulcers is just as obscure in children as in adults. The generally accepted view of the pathogenesis is that they are due to thrombosis followed by self digestion of the mucous membrane over a circumscribed area. A small number of cases have been found associated with sepsis, tuberculosis and syphilis. Other occasional associated causes are nephritis, uremia, local infection and trauma. Allergy and spasm of the blood vessels have been suggested as causes.

In regard to treatment, it is the belief of most authorities that all younger patients should first have benefit of medical treatment. Brown[9] reported cure in 49.5 per cent and satisfactory improvement in 16.7 per cent of all ulcers, totaling 66 per cent; Franklin White[10] stated that 59 per cent of patients whose duodenal ulcers had been medically treated were well three to five years after conclusion of the treatment, and that the condition of 22 per cent was improved, a total of 81 per cent.

As to the method of treatment, Stalker[11] of the Mayo Foundation carried out some experiments on 150 dogs to determine the prophylactic effect of various substances, including gastric mucin, duodenal extract, the diet-alkali Sippy regimen, milk alone and histidine. His results were much better with the diet-alkali method. Stalker was not able to produce a single chronic lesion in any of the dogs treated by the diet-alkali regime.

Kirby Martin[12] got better results with the diet-alkali treatment than with histidine hydrochloride in the treatment of peptic ulcer.

Report of a Case

R. J., a boy, aged 4, came to my office June 5, 1934, complaining of several attacks of pain in the pit of his stomach during the past month. The pain was spasmodic in character and would disappear the next day. The mother stated that he usually had a degree or so of fever and occasional vomiting with the attacks. He was rest-

Fig. 1
Diagnosis of duodenal ulcer made from above x-ray Nov. 2, 1936.

less during the night, apparently due to pain. Appetite was poor and bowels were constipated, requiring mineral oil. Also he had had hemorrhoids. He had had no serious illness and his family history was not significant.

Physical Examination: The patient had chronically diseased tonsils. There was slight rigidity of epigastric muscles yet no definite areas of tenderness on pressure. Temperature was 100.2 F. Remainder of physical examination was negative. Leukocytes numbered 6,950 with a normal differential count, ruling out acute appendicitis. The stool examination for intestinal parasites, urinalysis, tuberculin test, and the blood test for syphilis all gave negative results. A food upset was considered the most likely diagnosis. A soft diet was prescribed. The patient returned one week later having had no further abdominal pain and with improved appetite.

I saw the patient five times during the next twenty-eight months. Three times for protective inoculation against whooping cough and twice for colds. He was free from abdominal pain at the time of these visits. However, the mother stated that patient had had slight abdominal discomfort at intervals but not severe enough to be seen by a doctor.

On Oct. 17, 1936, twenty-eight months after the first attack, I saw the patient. He had pain in his abdomen, temperature of 103 F., suggestion of epigastric rigidity, but no localized tenderness. A malarial smear and urinalysis gave negative results. He was apparently all right the next day with a normal temperature. However, one week later, the patient again had epigastric pain, fever and vomited blood. Dr. L. H. Muse saw him during my absence from town. There was some rigidity of the epigastrium with tenderness on pressure over the upper right rectus. A tentative diagnosis of duodenal ulcer was made and a diet prescribed. The boy passed dark, tarry stools for several days, the first that the mother had ever noticed. The pain, soreness and hemorrhage ceased within a few days. After my return to Atlanta, a gastrointestinal series made by Dr. Wm. F. Lake showed the stomach somewhat dilated but there were

Fig. 2
X-ray made Oct. 4, 1939, shows ulcer completely healed.

no gastic filling defects nor deformities. There was marked pylorospasm and a filling defect seen on the duodenal side of the pylorus characteristic of a duodenal ulcer. There was no six-hour gastric retention. The twenty-four hour study revealed no lesion in the colon. The roentgenologist made a diagnosis of duodenal ulcer and I agreed with him.

The blood count at this time was luekocytes 3,450 with a normal differential. The erythrocytes were 2,800,000 with 60 per cent hemoglobin (Sahli). The urine was normal.

The patient was sent to the Georgia Baptist Hospital for transfusion and put on a modified Sippy diet and alkali regime. The child was sent home after a few days symptom free. A few days later the diet was augmented with soft eggs and cooked cereals. Later olive oil, one tablespoonful twice daily and cod liver oil, one teaspoonful three times daily was given. Strained orange juice was also given. After four weeks' treatment he had gained nine pounds in weight and looked better than he ever had. Other foods were gradually added to the diet as cream soups, bread, butter, strained vegetable soup, junket, soft custard, cornstarch pudding, cottage cheese and cream cheese.

There was no return of symptoms. Stools remained free of macroscopic blood. The examination of the stool for occult blood six weeks after treatment was started gave negative results. The erythrocytes at this time were 3,900,000, hemoglobin 70 per cent (Sahli), leukocytes 7,800 with a normal differential. Two months after treatment was started fluoroscopic and x-ray examination of stomach and duodenum showed the duodenum hyperactive and presented a slight deformity but not so marked as was found in previous examination. It was Dr. Wm. F. Lake's opinion that the ulcer had healed and that the deformity and rapid emptying of the duodenum was due to scar tissue.

Patient had bronchopneumonia in July, 1937, eight months after treatment was started without return of symptoms. After recovery from pneumonia the erythrocyte count showed 4,790,000 with 72 per cent hemoglobin. The leukocytes were 5,650 with a normal differential. Due to the fact that he had had several attacks of tonsillitis, the tonsils and adenoids were removed in August, 1937. The general condition of the patient has remained good. He has continued to gain

weight and has been free from ulcer symptoms. Recent x-rays still show a healed duodenal ulcer.

SUMMARY

A case of a duodenal ulcer is reported in a six year old boy who had complained of vague epigastric pains two years previously.

The correct diagnosis was not thought of until the patient vomited blood.

The importance of considering ulcer in cases of recurrent epigastric pain and its occurrence at any age is stressed.

A more frequent use of x-ray of the gastrointestinal tract in recurrent "umbilical colic" is advised.

Rapid healing will result in childhood as in adult life if the diseased area is protected from the digestive juices which can be accomplished by such treatment as the Sippy diet and alkalies.

Surgery should only be resorted to after medical treatment has completely failed.

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CITES FIRST RELAPSING FEVER CASE TO BE REPORTED IN OKLAHOMA

The first case to be reported in Oklahoma of relapsing fever, an acute infectious disease often found in certain tropical countries but rarely observed in the United States, is cited by W. P. Neilson, M.D., Enid, Okla., in *The Journal of the American Medical Association* for July 13, 1940.

The disease is characterized by recurrent attacks of fever and chills. The causative micro-organisms are spirochetes of the genus Treponema, generally transmitted to man by means of ticks and lice. Although Dr. Neilson found the organism in his patient's blood, he was unable to determine the origin of the infection. "The patient has not been away from her immediate vicinity," he says. "No foreign guest has visited the home. There is no history of an insect bite or any other external lesion. The patient lives on a farm in the wheat plains area; rodents are very few. She does no outside farm work."

The drug neoarsphenamine produced a cure.

ROCKY MOUNTAIN SPOTTED FEVER IN SUMTER COUNTY

Report of Case

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Plains

This is an infectious disease which was formerly thought to be peculiar to certain discrete localities in the States traversed by the Rocky Mountains, having its greatest frequency in Idaho and Montana. We now know, however, that it occurs in the Eastern States, the South, and in the central tier of Middle Western States.

In the United States the distribution of the disease as known in 1920 included the states of Idaho, Montana, Utah, Wyoming, Nevada, Oregon, Washington, Colorado, California, New Mexico, South Dakota and North Dakota.

One case was reported in Indiana in 1925, a probable case in New York in 1925, one in Virginia in 1926. After 1930 a few cases were reported in Kansas, North and South Dakota.

The identification in the East by Badger, Dyer, and Rumreich in 1931 was followed by rapid recognition of its prevalence in the Central and Eastern States.

In July, 1939, the only states in which there was not a reported case were Maine, Michigan, Mississippi, New Hampshire, Vermont and Wisconsin.

The disease has probably existed in Idaho and Montana since the first settlement by the white man, and seems to have been known to the Indians before that time.

It was first described by Surgeon Major W. W. Wood in 1896 in a report to the Surgeon-General.

Maxey of Idaho and McCullough of Montana gave the earliest clinical description of the disease. Ricketts established the transmission of the disease by the tick, and defined most of the problems which have resulted in our present knowledge of the disease and its causation.

Report of Case

In the late afternoon of June 29, 1940, there came

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to my office a father and mother who were sorely distressed over the condition of their seven year old son. He was most miserable, complaining of aches and pains over entire body, especially a most violent headache. His pulse and respirations were hurried, he was extremely nervous, his temperature was 102, his tongue was heavily coated, his breath foul, he was profoundly toxic.

I treated him symptomatically, making him as comfortable as possible, pushed my fluid intake, and made an effort to establish for him free elimination. A specimen of blood was sent on June 29 to the branch laboratory of the State Board of Health at Albany for malarial test and one for an agglutination test. From these I received a negative report.

During the week that followed I saw him daily at his home. His symptoms persisted, his temperature was 103, with rapid pulse, dry mouth, parched lips, coated tongue, hurried respirations, some delirium, poor elimination, taking fluids badly. He was becoming badly dehydrated. By the end of this first week there appeared rose-colored macules about 2 mm. in diameter. My clinical diagnosis was now typhus fever. A second specimen was submitted to the Laboratory on July 7 and again a negative report.

On July 10 temperature was 104.4, rash now a deeper red. He was extremely nervous and suffering so much pain that I resorted to morphia hypodermically.

On July 12 temperature was 105, other symptoms much worse. He now had a confluent rash and cutaneous hemorrhages, conjunctivitis, photophobia, rash showing plainly in roof of mouth.

On July 13 I sent a third specimen of blood to the Laboratory and reported a suspected Rocky Mountain spotted fever and requested that a doctor be sent from the Research Laboratory to see patient and follow up with test to confirm or disprove my diagnosis. On this same date I called Dr. Adkins, our Sumter County health physician, and reported the case and had him come out and see the boy.

On July 15 Dr. Jas. Watt, Assistant Surgeon of the United States Public Health Service, came and agreed with my clinical diagnosis. He brought some guinea pigs, inoculated them and began his study of case.

On July 16 the laboratory reported a strongly positive Weil Felix reaction and a blood titer of 4 plus in a dilution of 1 to 2560.

I again questioned about tick bite and the father recalled that on June 16 he and the boy made a trip into the woods and later in the day the boy came to him to see what he had found on his neck and it was a tick firmly attached to boy's neck. This was twelve days before he complained of being cold and aching.

The child began to show some improvement on July 18 and symptoms cleared up by lysis. His afternoon temperature first dropped to normal on July 22.

He had complete desquamation, his hair nearly all came out, and long after he was up his skin showed brown spots like the markings on turkey eggs.

I sent to the laboratory on July 23 a specimen of convalescent blood and on August 22 received a report to the effect that the Weil Felix test was strongly positive, and reported that we have now completed a protection test using this serum, and it confirms your clinical diagnosis. Stating that the serum gave a very strong protection against the virus of Rocky Mountain spotted fever, and none against that of typhus fever.

I have reported this case thinking that it would be of interest since this is the first case ever reported for this section of the state, and a belief that this is the second case in the state in which the diagnosis has been proved by laboratory methods.

PAROXYSMAL HEMOGLOBINURIA

Report of Case

R. Bruce Logue, M.D.
Atlanta

Paroxysmal hemoglobinuria is a rare manifestation of congenital or acquired syphilis. Mackenzie[1] states that 90 per cent have a positive Wassermann and 30 per cent show clinical evidence of syphilis. Congenital syphilitics are more liable to this disorder, and the incidence is greater in the male sex. The cause is an autohemolysin which can be separated from that responsible for the Wassermann reaction on the blood. This hemolysin combines in vitro with the red cells at a low temperature, and hemolysis occurs when the serum is warmed to 37 degrees. This phenomenon is termed the Donath-Landsteiner reaction. It may be present in rare cases without any symptoms. Dill and coworkers[2] found 1 positive test in 360 patients with syphilis, and none in 160 nonsyphilitic controls. Cases have been reported with symptoms unaccompanied by hemoglobinuria, and Phillips and Hogg[3] reported a case in a four year old boy with hemoglobinuria but no symptoms.

Attacks are more common during the winter months, and are usually precipitated by chilling. Occasionally exertion brings on an attack, and Berghousen[4] postulated tissue acidosis as a factor in initiating hemolysis. There is usually a latent period following exposure, during which the patient may complain of malaise, headache,

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backache, pain in the legs, abdominal cramps, and chilliness. Following a chill, the temperature may rise to 103-104 degrees, but rapidly falls to normal during a period of a few hours. The spleen and frequently the liver are temporarily enlarged, and there may be a mild jaundice. The blood pressure may be elevated during an attack.

The urine contains albumin, and is characteristically Burgundy colored, but may vary from dark red to black. Red cells are frequently present, and the urine gives an immediate positive benzidine test. After a few hours, the urine clears, and at times it is discolored at only one voiding. The leukocyte count drops initially and later rises to 10,000 to 15,000. As much as 10 per cent of the red cells may be destroyed by one paroxysm. The Donath-Landsteiner reaction on the serum is usually positive. Howard et al[5] reported a case in which the reaction became positive only after the patient had been cooled. Attacks may be reproduced by exposure of the extremities to ice water for 20-30 minutes (Rosenbach test). Anti-syphilitic treatment usually terminates the attack.

CASE REPORT

J. J., a Negro male, aged 13, was admitted to the hospital March 13, 1940 complaining of chills and fever, and black urine. He had had the usual diseases of childhood. His mother had received treatment for syphilis. For about four years he had had intermittent attacks of chills and fever. These occurred at irregular intervals, being most common during the winter months. At times he suffered as many as five attacks during the space of one week, and at other times several months elapsed between attacks. He was admitted to the hospital in May, 1937, with complaints of chills, fever, jaundice and abdominal pain. Physical examination at that time revealed a slight icterus, an enlarged spleen that could be felt 1 cm. beneath the costal margin, and a soft systolic murmur at the base of the heart. There was a marked secondary anemia. The leukocyte count was 8,400 with 58 per cent neutrophils and 42 per cent lymphocytes. The platelet count, bleeding time, coagulation time, clot retraction and fragility test were all normal. Repeated examinations revealed no malarial parasites. A wet cell preparation for sickling was negative. The Wassermann reaction on the blood was repeatedly 4 plus. The value for the serum bilirubin was 3 mg. per 100 cubic centimeters. A diagnosis of chronic malaria was made and a course of quinine was given.

After discharge, the patient continued to have mild attacks and during the winter prior to his present admission, these occurred 2 or 3 times a month. He began to notice that his urine became dark immediately after an attack. For about one month he had received treatment for an ulcer over the outer surface of the right leg. On the morning of admission, while in the Out Patient Clinic, he experienced a shaking chill, followed by fever and urine which was almost black.

The temperature was 103, the pulse 120 and the respirations 22. The blood pressure was 114/70. There was a generalized shotty lymphadenopathy. Mulberry molars were present bilaterally. A soft systolic murmur was heard at the apex and over the base of the heart. The spleen was palpable just beneath the costal margin. There was a shallow ulceration over the outer surface of the right ankle measuring 3 by 3 cm. The leukocyte count was 15,000 with 72 per cent polymorphonuclears and 28 per cent lymphocytes. The red count was 2,200,000 and the hemoglobin was 7.5 Gm. (Sahli). The urine was Burgundy wine colored, specific gravity 1.010, and contained 1 plus albumin. There were numerous red cells present and the urine gave an immediate strongly positive benzidine test. The sedimentation rate was 8 mm. in 1 hour by the Westergren method. A wet cell preparation showed no sickling. The Kahn reaction on the blood was 4 plus. The bleeding time, coagulation time, clot retraction, fragility test, and platelet count were all normal. The icterus index on the third day was 5.5, and the serum bilirubin .3 mg. per 100 cubic centimeters. A Donath-Landsteiner reaction was strongly positive and a control serum gave negative results.

The temperature returned to normal within 24 hours, and no further chills occurred. The urine became clear within 12 hours. An attempt was made to reproduce an attack by exposure to cold water; however, this was unsuccessful. The patient was discharged on the 12th day and became chilled on the way home with a recurrence of symptoms. A subsequent attack occurred one week later, and he brought the characteristic wine-colored urine to the clinic. He was placed on routine anti-syphilitic treatment, and has experienced one spell during the subsequent 10 months. The Donath-Landsteiner reaction and the Wassermann reaction have both become negative.

BIBLIOGRAPHY

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2. Dill, L. V., Dowros, I., and Isenhour, C. E.: Latent Paroxysmal Hemoglobinuria, Am. J. Syph., Gonor., & Ven. Dis., 23:220-223 (March) 1937.
3. Phillips, J. T., Jr., and Hogg, P.: Paroxysmal Hemoglobinuria—Report of Case in a Child Four Years Old, Virginia M. Monthly, 66:737-740 (Dec.) 1939.
4. Berghausen, O.: Role of Acidosis of Tissues as a Factor in the Production of an Attack in Paroxysmal Hemoglobinuria, Arch. Int. Med., 9:137, 1912.
5. Howard, C. P., Mills, E. S., and Townsend, S. R.: Paroxysmal Hemoglobinuria—Report of Case, Am. J. M. Sc. 196:792-796 (Dec.) 1938.

A fertile field for the tuberculosis germ is found in workers over thirty years of age. Although the disease is recognized as an occupational hazard of the "dust trade" employees, the occurrence of the disease in other trades is wide enough to warrant an x-ray examination of all workers in all fields of industry.—Kendall Emerson, M.D.

THE PRESIDENT'S PAGE

Thanks, Dr. Patterson, for your final message, as President, in the May Journal. For me to follow the good work of Job Patterson and to realize that Jim Redfearn is coming on puts me on a tough spot. It means the necessity of hard work, plenty of help and some lucky breaks to keep this year's work up to the high standards already set. Incidentally, I want to congratulate our efficient Journal Staff on getting out the May Journal so promptly after the strenuous Macon session.

* * * *

The funds of our Association are gradually accumulated by exercising the greatest economy. Therefore, we should think twice before voting for their expenditure. I think we were careful, courageous and wise in setting up $5,000 for our public health education program at the Macon session. No part of this will be spent for salaries or traveling expenses. The program will be carried out in each Congressional District with all equipment and property of the Association in the hands of the district Councilor who will be directly responsible to the Association through its Council. The members of our various committees and those of the Woman's Auxiliary are donating their services free to the people of Georgia. In this work we are expecting great things from our Woman's Auxiliary—our most potent ally in all our work. Any effective educational program must begin with the children and young people of our democracy. The Woman's Auxiliary is particularly fitted for this important task. Local community health education given in cooperation with local, state and national public health agencies will help make Georgia a healthier and therefore wealthier State.

* * * *

The Association, also, set up a fund of $5,000 under the direction of the Council to help care for aged and needy physicians. This has been long contemplated and had been postponed only by lack of funds. It is distinctly in order at the present time. Many state medical associations, following the lead of Pennsylvania, have such benefit funds in operation. The Council, in its wisdom, will investigate and learn from the experiences of other associations so that we may have the benefit of their knowledge. Unless we pull together and support our profession in undertakings such as this we are sunk.

* * * *

Savannah has just adopted the Standard Milk Ordinance of the United States Public Health Service which requires the pasteurization of all milk sold in that city without any protest from producers or distributors (effective Aug., 1941). Before this about 80 per cent of the milk sold in Savannah was pasteurized. Thus our oldest city has again taken the lead in this important field. Eventually all milk, our most important single food item, will be pasteurized. Certified milk is a good milk for pasteurization, all arguments to the contrary notwithstanding.

* * * *

Now is the time to pay off that mortgage on your home. Begin today! You and your family deserve a home free from debt. Besides, this is the best and safest investment in the world. You will be a better doctor and a happier man.

Allen H. Bunce, M.D.

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.

JUNE, 1941

OFFICERS 1941-42

At the conclusion of the Macon Session, May 16, Dr. Allen H. Bunce, of Atlanta, became President of the Association. Elected to serve with Dr. Bunce are Dr. J. A. Redfearn, of Albany, President-Elect; Dr. H. G. Weaver, of Macon, First Vice-President; and Dr. Lester Harbin, of Rome, Second Vice-President.

Re-elected to fill their respective former positions are Dr. W. A. Selman, of Atlanta, Chairman of the Council; Dr. Zeb V. Johnston, of Calhoun, Clerk of the Council; Dr. Olin H. Weaver, of Macon, Delegate to the American Medical Association; Dr. C. K. Sharp, of Arlington, Alternate Delegate to the American Medical Association; Dr. J. W. Simmons, of Brunswick, Parliamentarian; Dr. C. B. Lord, of Jefferson, Councilor for the Ninth District, and Dr. H. L. Cheves, of Union Point, Councilor for the Tenth District.

MEETING PLACE FOR 1942

The Executive Committee of the Association was authorized to select the meeting place for the next annual session of the Association, and to name dates not in conflict with other important meetings.

Two invitations were considered, but when an examination was made of the facilities of each place, with special attention being given to available space for scientific and technical exhibits, the Bon Air Hotel in Augusta was selected as the meeting place for 1942. The dates for the next meeting are April 28, 29, 30 and May 1.

Complete roster of officers and committees will be published in the July issue of the JOURNAL.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

EXHIBITS AND AWARDS

Both scientific and technical exhibits at the Ninety-Second Annual Session of the Medical Association of Georgia, held in Macon, won many complimentary remarks. Their arrangement made them attractive as well as accessible.

Of particular interest to everyone was the exhibit prepared by the Art Department of the National Youth Administration of Georgia for Georgia's Selective Service Headquarters, to show the results of the selective service medical examinations in the State. Another exhibit which held the attention of both physicians and laymen was the unusual collection on medical history by Dr. J. Calvin Weaver, of Atlanta.

Awards for scientific exhibits at the 1941 session, and for the best scientific paper presented before the Association at its 1940 session were as follows:

First Award—Robert Winship Clinic, Emory University. Exhibit: "Cancer of the Mouth."

Second Award—Doctors Howard and Hugh Hailey, of Atlanta. Exhibit: "Diseases of the Skin."

Third Award—Georgia State Tuberculosis Sanatorium, Alto. Exhibit: "The Use of Photoroentgenography in the Diagnosis and Treatment of Tuberculosis."

Dr. Robert Greenblatt, of Augusta, won the Crawford Long gold medal, the award being for his work on menometrorrhagia which was reported at the Savannah session of the Association last year.

STATE BOARD OF MEDICAL EXAMINERS

Harold P. McDonald, M.D., Atlanta, President.
Steve P. Kenyon, M.D., Dawson, Vice-President.
Claude Griffin, M.D., Atlanta.
M. B. Copeloff, M.D., Atlanta.
L. G. Neal, M.D., Cleveland.
J. W. Palmer, M.D., Ailey.
Hulett H. Askew, M.D., Atlanta.
G. T. Lyons, M.D., Atlanta.
R. F. Wheat, M.D., Bainbridge.

The Board of Medical Examiners meet twice each year for the purpose of examining applicants who desire to practice in Georgia: in June in Atlanta and Augusta, and in October at Atlanta.

CAT.

JAMES AUGUSTUS REDFEARN, M.D.

Dr. James Augustus Redfearn, of Albany, will be the ninety-fourth President of the Medical Association of Georgia, having been elected President-Elect at the Macon Session just ended.

The thirteenth child of Robert Huntley and Mary McDonald Redfearn of Thomas County, Georgia, James Augustus (better known to his colleagues as plain Jim) was born Aug. 15, 1882. His early training included participation in quilting parties, log rollings, three-months' free schools and, best of all, the education gained by association with the other members of a large family.

In 1903, after recovering from an attack of typhoid fever, Redfearn matriculated at the State Normal School in Athens. Although a month late in entering school, his progress was favorable and at the close of the school year he began teaching in a rural school in Grady County; still later he taught in another school in Thomas County. With funds earned for teaching he entered the University of Georgia and in due time graduated from its school of pharmacy.

While a student at the University of Georgia, Redfearn set up the Southern college record as a baseball pitcher. This ability was used by him to secure his medical education after leaving the University, where he never received compensation for pitching ball. He obtained his medical education at the Atlanta School of Medicine (now the School of Medicine of Emory University), graduating in the class of 1911. He has augmented his medical knowledge by taking numerous post-graduate courses in the leading medical centers of this country.

During the thirty years that Dr. Redfearn has been engaged in the practice of medicine in Albany and Southwest Georgia, he has been a leader in all of the efforts to extend medical service and thus improve health conditions in that section of our commonwealth. It was through his work that Dougherty County instituted in 1928 the first county-wide malaria control program which culminated in great success.

JAMES AUGUSTUS REDFEARN, M.D., Albany
President-Elect, 1941-1942

Other counties soon adopted similar plans for malaria control. In recognition of his influence and untiring work in eradicating malaria Dr. Redfearn's name was inscribed on the L. G. Hardman Silver Loving Cup, given by the late Governor Hardman to the Medical Association of Georgia to be used to record the names of persons rendering conspicuous service for the betterment of health conditions in the State.

Dr. Redfearn has long been interested in control measures for tuberculosis. It was in connection with his interest in treating this disease that he requested and obtained permission to visit the Georgia State Tuberculosis Sanatorium at Alto and learn the technic of pneumothorax refills. Acting on his proposal that other Georgia physicians be extended the same courtesy to learn more about tuberculosis and its treatment, officials of the Sanatorium now foster such post-graduate medical education and more than one hundred physicians have taken

advantage of the opportunities offered them there.

In one of his several scientific exhibits at the annual sessions of the Medical Association of Georgia, Dr. Redfearn showed a specimen of massive calcification of the myocardium (stony heart), said to be the twelfth such specimen reported in medical literature. The specimen as part of an exhibit on cardiology so impressed Sir Jonathan Meakins, a visitor and guest speaker at the meeting, he requested permission to use it for an illustration in his textbook on the practice of medicine.

Dr. Redfearn has held positions of trust in many organizations. He has served as President of the Dougherty County Medical Society, and has occupied similar offices in the Second District Medical Society and in the Albany Kiwanis Club. He was Councilor of the Medical Association of Georgia from the Second District for eleven years and in 1926-27 served as First Vice-President of the Association. In addition to holding memberships in his county and state medical organizations, he is a fellow of the American Medical Association, a fellow of the American College of Chest Physicians and a member of the American Heart Association. He is a member of the department of internal medicine of the Phoebe Putney Memorial Hospital staff, Albany; a member of the Methodist church, a member of the Phi Chi fraternity and is a 32nd Degree Mason.

In 1914 Dr. Redfearn was married to Miss Elleighfare Muse, of Albany. They are the parents of three children: Sarah, Mary and James, Jr.

More could be said about Jim Redfearn, and more will be said when he assumes the presidency of the Medical Association of Georgia. He is a gentleman and a scholar of the first order, and with him as the leader the members of the Association can look forward to continued progress in Georgia medicine.

Abstract of the proceedings of the House of Delegates at the Macon session, May 13-16, 1941, will be published immediately after transcript is received from the official reporter.

A HEALTH PROBLEM*

Dr. Allen H. Bunce, president of the Medical Association of Georgia, touched upon a peculiarly southern problem when he said, speaking before the Georgia Public Health Association, that the Negro population presents one of the most pressing health problems in this state.

He pointed out that, among the Negro population, venereal diseases, tuberculosis and contagious diseases of childhood are exceptionally prevalent. Diseases caused by lack of proper nutrition are also taking a heavy toll, "though we live in a land of plenty," he added.

Dr. Bunce touched the core of this problem when he said that what affects the health of one race, affects the health of the other. It is impossible, under modern conditions of life, to quarantine either race against the other.

Negroes are, almost exclusively, found in Georgia homes as servants. In our businesses, offices, stores and shops, they come in close contact with us. They constitute, socially, a race apart, yet in everyday life they provide some of our closest contacts. It is Negro women who nurse and guard our children, it is Negroes who cook our food and serve us at the table. It is Negroes who wash our clothes.

It is impossible to segregate a disease which may be rampant among Negroes, from the white people.

Thus everything which affects the health of the Negro population directly affects the health of all. Rehousing which provides clean and sanitary homes for Negroes should be welcomed enthusiastically by all white people. Conditions under which Negroes have for too long lived, many times in shacks utterly lacking in all opportunity for decency and cleanliness, have been a disgrace to the south.

Public health services which detect and cure diseases among the Negro population are directly benefitting the white race. Better schooling for Negroes, teaching them better how to live and to avoid disease, is another direct benefit to us all.

Whenever a Georgia community, or authority, demurs at spending money on such things as these, for the Negroes, it is directly injuring the health of, and imperiling the safety of, the entire population, white equally with colored.

For selfish reasons if for no others, we have got to realize that the white people of the south are responsible for conditions under which the Negroes live and, if those conditions provoke disease and vice, it is the white people, in the long run, who will suffer and pay.

*Editorial, Atlanta Constitution, June 2, 1941.

The University of Georgia School of Medicine, Augusta, offers an intensive post-graduate course in office endocrinology for the week of June 23. Dr. Robert B. Greenblatt will give the course in the form of didactic lectures. The course will be limited to 20.

MEDICAL ASSOCIATION OF GEORGIA

Balance Sheet

April 1, 1940, to April 30, 1941

April 1, 1940:		
Cash on hand subject to check—Fulton Nat'l. Bank, Atlanta	$ 9,527.18	
Standard Federal Savings & Loan Association, Atlanta	2,122.40	
Fulton National Bank, Atlanta, Savings acct.—History fund	1,287.72	
Citizens & Southern National Bank, Atlanta	5,236.88	
First National Bank, Atlanta	5,196.79	
Six $1,000 U. S. Government 10 Year Savings Bonds	4,603.74	
Four $1,000 U. S. Government 10 Year Savings Bonds	3,021.75	$31,001.46

RECEIPTS

Receipts from operation	$23,742.87	
Standard Federal Savings & Loan Association—Interest	74.92	
Fulton National Bank, Atlanta—Interest	16.14	
Citizens & Southern Nat'l. Bank, Atlanta—Interest	65.65	
First National Bank, Atlanta—Interest	65.15	
Six $1,000 U. S. Government 10 Year Savings Bonds—accrued interest	141.37	
Four $1,000 U. S. Government 10 Year Savings Bonds—accrued interest	94.25	$24,200.35
Total		$55,201.81

DISBURSEMENTS

April 1, 1940, to April 30, 1941:		
Disbursements—Itemized statement attached		$18,203.76
Cash on Hand		
Standard Federal Savings & Loan Association, Atlanta	$ 5,000.00	
Fulton National Bank, Atlanta	1,303.86	
Citizens & Southern Natl. Bank, Atlanta	5,302.53	
First National Bank, Atlanta	5,261.94	
Six $1,000 U. S. Government 10 Year Savings Bonds and accrued interest	4,750.11	
Four $1,000 U. S. Government 10 Year Savings Bonds and accrued interest	3,116.00	
Fulton National Bank, Atlanta—Cash on hand subject to check	12,263.61	$36,998.05
Total		$55,201.81

MEDICAL ASSOCIATION OF GEORGIA

Balance Sheet

April 1, 1940, to April 30, 1941

SOURCES OF INCOME

Dues	$13,132.00	
Advertising	7,099.29	
Public Relations Bureau	1,475.00	
Exhibits	1,984.43	
Subscriptions	23.90	
Medical Defense—refund	20.00	
Dividend on check—Candler County Bank	8.25	$23,742.87

DISBURSEMENTS CLASSIFIED

The Journal		$ 8,018.23	
Salaries		2,188.75	
Medical Defense		1,543.79	
Public Relations Bureau		1,262.35	
Special equipment, loud speaker, motion picture and projector machines, steel cabinets and typewriter		779.70	
Committees			
Medical Preparedness	$178.57		
Post-Graduate Study	320.12		
Cancer Commission	150.00		
Revision of U. S. Pharmacopeia	140.75		
Appendicitis	66.65		
Public Policy and Legislation	41.97	893.06	
Savannah Session			
Programs, reporting, registration cards, programs—Woman's Auxiliary	280.75		
Scientific exhibit	261.19		
Commercial exhibit	107.25		
Guests	109.25		
Badges for Savannah session	38.44		
Work at registration desk, stenographic work for committees, operators of motion picture and projector machines	98.30	895.18	
Honorarium for President and expenses of officers		404.80	
Postage		340.00	
Postage due		20.00	
Special and extra clerical work		336.00	
Telephone and telegraph		100.67	
Stationery and mimeograph supplies		103.86	
Badges for Macon session		51.06	
Councilors		16.38	
Reprints for associate editor		45.00	
Delegates and special representative to the New York session of the American Medical Association		600.00	
Checks returned unpaid and paid later		59.34	
Fire Insurance, surety bonds, American Medical Directory,			

engraving, wiring office and moving, stationery, janitor and all other expenses	540.59	
	$18,203.76	
Gain	5,539.11	$23,742.87

THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

Receipts and Disbursements

April 1, 1940 to April 30, 1941

RECEIPTS

Subscription from dues	$ 5,624.00	
Advertising	7,099.29	
Subscriptions	23.90	$12,747.19

DISBURSEMENTS

Printing	$ 4,473.59	
Salaries	2,188.75	
Cuts for illustrations	388.67	
Postage	312.50	
Commission on advertising orders	294.56	
Rent	162.50	
Envelopes and addressograph supplies	90.88	
News clippings	80.00	
Copyright	26.78	
Profit	4,728.96	$12,747.19

PUBLIC RELATIONS BUREAU OF THE MEDICAL ASSOCIATION OF GEORGIA

Balance Sheet

April 1, 1940 to April 30, 1941

RECEIPTS

April 1, 1940		
Cash on hand	$ 3,039.06	
Collected	1,475.00	$ 4,514.06

DISBURSEMENTS

April 1, 1940 to April 30, 1941		
Printing Medical News, postage and salary	$ 1,262.35	
Cash on hand	3,251.71	$ 4,514.06

MEDICAL ASSOCIATION OF GEORGIA

DISBURSEMENTS—*Itemized*

April 1, 1940 to April 30, 1941

No.	Name	Amount
3368	Mrs. L. W. Williams Commission on advertising of Savannah business houses	$ 56.88
3372	Photo Process Engraving Co. Zinc etching and copper half tones for illustrations	21.16
3373	Sommer Badge Manufacturing Co. Badges for the Savannah session, April 23-26, 1940	38.44
3374	Bryan, Middlebrooks & Carter, Attys. Cost in suit of Mr. and Mrs. Pilgrim vs. Dr. R. E. Hamilton and Dr. J. W. Landham; and cost in suit of B. W. Patterson vs. Dr. J. C. Anderson	74.39
3375	Herff-Jones Co. President's Key for Wm. H. Myers, president, 1939-1940	8.27
3376	John H. Harland Co. 15,000 No. 10 envelopes	36.75
3377	Southern Bell Tel. & Tel. Co. Telephone account to March 11, 1940	6.00
3378	Southern Press Clipping Bureau News clippings for February and March, 1940	10.00
3379	Georgia Press Association News clippings for February and March, 1940	10.00
3380	Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for March, 1940	200.00
3381	H. L. Rowe Salary for Executive Secretary for March, 1940	192.50
3382	Mrs. G. R. Sims Work for Public Relations Bureau	120.00
3383	Edgar D. Shanks, M.D. Actual and necessary expenses incurred from April 1, 1939 to March 31, 1940, includes important and necessary travel expenses and other incidentals	126.00
3384	H. L. Rowe Extra work for the Public Relations Bureau and incidentals at the office	90.00
3385	Bryan, Middlebrooks & Carter, Attys. Expenses for reporting trial of suit of Mrs. Lillie L. Nelson vs. Dr. J. E. Smith and Dr. Ware and personal expenses of Mr. Middlebrooks, Atty.	50.25
3386	L. F. Livingston, Postmaster Postage	30.00
3387	Bryan, Middlebrooks & Carter, Attys. Expenses in suit of Mrs. Sarah Pilgrim vs. Dr. J. W. Landham and Dr. R. E. Hamilton; also expenses in suit of Mrs. Lillie Nelson vs. Dr. J. E. Smith, et al.	26.00
3388	Miss Annie Jacks Commission on advertising orders	27.81
3389	Bryan, Middlebrooks & Carter, Attys. Expenses in trial of suit of Mrs. Lillie Nelson vs. Doctors Smith, Coffee and Ware	80.50
3390	Walter W. Brown Publishing Co. Printing and mailing 2,300 copies of the April, 1940 issue of The Journal	337.25
3391	Cash For post office order and fee to copyright Journal	2.06
3392	Hotel DeSoto For Bettencourt Sign Co. — signs painted for the Association and paid for by Hotel DeSoto as a matter of	

convenience 22.50

3393—J. A. Buckley
Night watchman for Commercial exhibits, April 23-26, 1940, at the Savannah session 9.00

3394—Gus Smith
Night watchman for commercial exhibits April 23-26, 1940 at the Savannah session 20.00

3395—Miss Elizabeth Guest
Help at registration desk April 23-26, 1940, at the Savannah session 16.00

3396—Bettencourt Sign Co.
Signs for the scientific exhibit at the Savannah session, April 23-26, 1940 10.00

3397—Cathryn Byers
Stenographic work for Reference Committees during the Savannah session, April 23-26, 1940..... 7.50

3398—Mrs. Wm. S. Vining
Stenographic work of Reference Committees during the Savannah session, April 23-26, 1940..... 7.50

3399—Franklin Akerman
Operating moving picture machine during the Savannah session, April 23-26, 1940 ..... 15.00

3400—Leland Boggs
Operating projector and moving picture machine during the Savannah session, April 23-26, 1940 ..... 15.00

3401—Miss Mabel F. Levison
Stenographic work for Reference Committees during the Savannah session, April 23-26, 1940 ..... 9.30

3402—A. B. Dick Co.
Mimeograph ink 2.50

3403—Southern Bell Tel. & Tel. Co.
Telephone account to April 11, 1940 6.00

3404—Darby Printing Co.
Printing the April and May issues of the Medical News 43.00

3405—Ivan-Allen-Marshall Co.
Typewriter paper, wrapping paper, twine, paste and pencils 8.80

3406—Walter W. Brown Publishing Co.
Printing programs for the Association and Woman's Auxiliary for the Savannah session, April 23-26, 1940 and registration cards 105.75

3407—L. F. Livingston, Postmaster
For deposit on postage due account.... 10.00

3408—L. F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3409—F. C. Bate
Painting signs for the scientific exhibit at the Savannah session, April 23-26, 1940 ..... 35.25

3410—Bryan, Middlebrooks & Carter, Attys.
Compensation for Erwin Sibley, Atty., for making arrangements to take depositions and serving witnesses in the suit of Mrs. Lillie Nelson vs. Doctors Coffee, Smith and Ware, Fitzgerald 10.00

3411—Eastman Kodak Stores, Inc.
750 Watt G. E. Projecting lamp for scientific session, Savannah, April 23-26, 1940 ..... 4.50

3412—Ernest P. Tomlinson
Repairing and polishing the Hardman Loving Cup 6.50

3413—J. M. Breckenridge & Son
Carnations for the President, Wm. H. Myers, Savannah session, April 23-26, 1940 ..... 4.00

3414—The Floding Co.
Ribbons for awards for the scentific exhibits of the most worthy merit at the Savannah session, April 23-26, 1940 ..... 1.00

3415—Edgar D. Shanks, M.D
Salary for Secretary-Treasurer for April, 1940 ..... 200.00

3416—H. L. Rowe
Salary for Executive Secretary for April, 1940 ..... 192.50

3417—Cash
Work and help for commercial exhibitors and Woman's Auxiliary—outside hands hired by the chief of bellboys in Hotel DeSoto during the Savannah session, April 22-26, 1940—$43.65; meals and other expenses of H. L. Rowe, April 21-26, 1940—$11.20 ..... 54.85

3418—Miss Annie Jacks
Commission on advertising order..... 36.00

3419—L. F. Livingston, Postmaster
Postage 30.00

3420—Logan Clarke Insurance Co.
Premium on surety bond for Secretary-Treasurer for one year to May 25, 1941 ..... 5.00

3421—J. D. Grant
Transporting material and work on scientific exhibit at the Savannah session, April 23-26, 1940..... 226.24

3422—Hotel DeSoto
Expenses of invited guests during the annual session, Savannah, April 23-26, 1940 ..... 31.85

3423—Steve P. Kenyon, M.D.
Expenses incurred as Councilor to May 4, 1940 ..... 6.38

3424—Mrs. Helen Lyon
Research History of Pediatrics in Georgia 10.00

3425—Bryan, Middlebrooks & Carter, Attys.
Stenographic cost of transcript of depositions by Dr. Floyd W. McRae in suit of Mrs. Max Kuttner vs. Dr. Cosby Swanson 5.00

3426—Western Union Telegraph Co.
Telegraph account to May 1, 1940 2.33

3427—Frank H. Lahey, M.D.
Expenses to and from Savannah, April 23-26, 1940, invited guest 77.40

3428—Cash
Post office order and fee to copyright The Journal 2.06

3429—C. B. Lord, M.D.
Expenses incurred as Councilor to May 20, 1940 10.00

3430—C. W. Roberts, M.D.
Payment on expenses of delegate to attend the New York session of the American Medical Association, June 10-14, 1940 150.00

3431—Wm. H. Myers, M.D.
Payment on expenses of delegate to attend the New York session of the American Medical Association, June 10-14, 1940 150.00

3432—Olin H. Weaver, M.D.
Payment on expenses of delegates to attend the New York session of the American Medical Association, June 10-14, 1940 150.00

3433—Edgar D. Shanks, M.D.
Payment on expenses of special representative to attend the New York session of the American Medical Association, June 10-14, 1940 150.00

3434—J. C. Patterson, M.D.
Honorarium for President, 1940-1941 300.00

3435—Walter W. Brown Publishing Co.
Printing and mailing 2,300 copies of the May, 1940 issue of The Journal 326.81

3436—Wm. H. Myers, M.D.
Expenses for wires, phone calls and postage while President of the Association 6.51

3437—Forrest and Frank Adair
Rent from May 10 to July 10, 1940 75.00

3438—C. C. Aven, M.D.
Expenses to and from Washington, D. C., for the revision of the United States Pharmacopeia 70.75

3439—Addressograph Sales Agency
Addressograph ribbon .94

3440—Southern Bell Tel. & Tel. Co.
Telephone account to May 11, 1940 7.75

3441—Southern Press Clipping Bureau
News clippings for April and May, 1940 10.00

3442—Atlanta Envelope Co.
8,000 Envelopes to mail The Journal 27.36

3443—Photo Process Engraving Co.
Cuts for illustrations 11.27

3444—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for May, 1940 200.00

3445—H. L. Rowe
Salary for Executive Secretary for May, 1940 192.50

3446—L. F. Livingston, Postmaster
Postage 30.00

3447—Underwood Elliott Fisher Co.
Underwood typewriter 93.56

3448—J. M. Breckenridge & Sons
Floral arrangement for Wm. H. Myers, Jr., son of past president, Wm. H. Myers 7.50

3449—Allen H. Bunce, M.D.
Expenses to and from Washington, D. C., to attend the convention for the revision of the United States Pharmacopeia, May 14-15, 1940 70.00

3450—Darby Printing Co.
Printing 750 copies of the June, 1940 issue of the Medical News 22.00

3451—J. F. Thompson Engraving Co.
Engraving 2,000 letterheads and 2,000 envelopes for the President, J. C. Patterson, M.D. 33.00

3452—Walter W. Brown Publishing Co.
Printing and mailing 2,300 copies of the June, 1940 issue of The Journal 326.81

3453—L. F. Livingston, Postmaster
Postage 30.00

3454—J. F. Thompson Engraving Co.
Engraving the names of Doctors Howard and Hugh Hailey, with sketch of original work on the Hardman Loving Cup 10.45

3455—Cash
Post office order and fee to copyright The Journal 2.06

3456—J. L. Campbell, M.D., Chm. Cancer Com.
Expenses of the Cancer Commission to promote education for the control of cancer 150.00

3457—Southern Bell Tel. & Tel. Co.
Telephone account to June 11, 1940 7.62

3458—L .F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3459—Walter W. Brown Publishing Co.
Reprints of the officers and committees for 1940-1941, and abstract of the proceedings of the House of Delegates, Savannah session, April 23-26, 1940 30.50

3460—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for June, 1940 200.00

3461—H. L. Rowe
Salary for Executive Secretary for June, 1940 192.50

3462—American Medical Association
Copy of the American Medical Directory—Sixteenth Edition 15.00

3463—Darby Printing Co.
Printing 600 copies of the July, 1940 issue of the Medical News 21.00

3464—Empire Letter Shop
Multigraphing 2,000 postal cards and 500 letters, and cost of postal cards $20.00, for the Committee on Medical Preparedness 27.65

3465—Miss Annie Jacks
Commission on advertising order..... 12.00

3466—L. F. Livingston, Postmaster
Postage 30.00

3467—The Atlanta Constitution
Page advertisement, April 14, 1940, for Public Relations Bureau..... 357.85

3468—Southern Bell Tel. & Tel. Co.
Telephone account to July 11, 1940.. 8.15

3469—Garlington-Hardwick Co.
Rent from July 9 to September 9, 1940 ..... 50.00

3470—Walter W. Brown Publishing Co.
Printing and mailing 2.275 copies of the July, 1940 issue of The Journal 324.96

3471—Cash
Post office order and fee to copyright The Journal 2.06

3472—L. F. Livingston, Postmaster
Postage 30.00

3473—Southern Press Clipping Bureau
News clippings for June and July, 1940 ..... 10.00

3474—Edgar D .Shanks, M.D.
Salary for Secretary-Treasurer for July, 1940 ..... 200.00

3475—H. L. Rowe
Salary for Executive Secretary for July, 1940 ..... 192.50

3476—Southern Engraving Co.
Cuts for illustrations 32.32

3477—American Surety Co.
Premium on bond for Executive Secretary to September 6, 1941..... 5.00

3478—A. B. Dick Co.
Maintenance of mimeograph machine 7.00

3479—Darby Printing Co.
Printing 600 copies of the August, 1940 issue of the Medical News..... 21.00

3480—Ansley Hotel
Balance on account for Dr. J. C. Patterson, president, for July, 1940..... 5.75

3481—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the August, 1940 issue of The Journal 324.96

3482—Miss Winifred H. McLean
Taking and transcribing proceedings of the Savannah session, April 23-26, 1940 ..... 175.00

3483—L. F. Livingston, Postmaster
Postage 30.00

3484—Cash
Post office order and fee to copyright The Journal 2.06

3485—Southern Bell Tel. & Tel. Co.
Telephone account to August 11, 1940 6.00

3486—Addressograph Sales Agency
Addressograph ribbons and frames 4.16

3487—Searcy & Co.
Fire insurance on scientific exhibit booths stored at Milner 10.00

3488—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for August, 1940 ..... 200.00

3489—H. L. Rowe
Salary for Executive Secretary for August, 1940 ..... 192.50

3490—Atlanta Envelope Co.
8,000 Envelopes for mailing The Journal 27.36

3491—Darby Printing Co.
Printing 600 copies of the September, 1940 Medical News 21.00

3492—Cash
Post office order and fee to copyright The Journal 2.06

3493—L. F. Livingston, Postmaster
Postage 30.00

3494—Empire Letter Shop
Letters for Dr. Edgar H. Greene, chairman Committee on Medical Preparedness 2.90

3495—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the September, 1940 issue of The Medical News 324.96

3496—Southern Press Clipping Bureau
News clippings for August and September, 1940 ..... 10.00

3497—Southern Bell Tel. & Tel. Co.
Telephone account to September 11, 1940 ..... 6.00

3498—Photo Process Engraving Co.
Cuts for illustrations 50.25

3499—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for September, 1940 ..... 200.00

3500—H. L. Rowe
Salary for Executive Secretary for September, 1940 ..... 192.50

3501—L. F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3502—L. F. Livingston, Postmaster
Postage 30.00

3503—Darby Printing Co.
Printing 600 copies of the October, 1940 issue of the Medical News..... 21.00

3504—Allen H. Bunce, M.D.
To reimburse payee for amount paid to Mr. L. W. Kibler, of Tennessee, for expenses to attend the meeting of the Committee on Post-Graduate Study in Atlanta, October 6, 1940.... 15.00

3505—Ansley Hotel
Local phone calls by the President, J. C. Patterson, M.D..... 1.00

3506—Cash
Post office order and fee to copyright The Journal 2.06

3507—L. F. Livingston, Postmaster
Postage 30.00

3508—Bryan, Middlebrooks & Carter, Attys.
Paid Gordon A. Smith for jury information in trial of suit of Kuttner vs. Dr. Cosby Swanson; and one-half cost of stenographer for reporting the trial of case 45.00

3509—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the October, 1940 issue of the Journal 324.96

3510—Associated Mutuals, Inc.
Fire insurance on office furniture and fixtures 24.93

3511—Southern Bell Tel. & Tel. Co.
Telephone account to October 11, 1940 ..... 6.35

3512—Remington Rand Co.
Coupon book for one dozen typewriter ribbons 7.00

3513—Empire Letter Shop
Cost of postal cards and mimeographing for the Committee on Medical preparedness 7.45

3514—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for October, 1940 ..... 200.00

3515—H. L. Rowe
Salary for Executive Secretary for October, 1940 ..... 192.50

3516—Drug Package, Inc.
Printing perforated stickers in red ink for Committee on Appendicitis.... 66.65

3517—Ivan Allen-Marshall Co.
Paste, book, index tabs, T. W. paper, second sheets, ink, twine and rubber bands 20.15

3518—A. B. Dick Co.
Mimeograph stencil sheets 3.50

3519—Photo Process Engraving Co.
Cuts for illustrations 14.76

3520—Darby Printing Co.
Printing 600 copies of the November, issue of The Medical News 21.00

3521—Walter W. Brown Publishing Co.
Paid on reprints for Dr. T. C. Davison, associate editor, and membership cards for 1941 ..... 45.00

3522—Edgar H. Greene, M.D.
Postage used for the Committee on Medical Preparedness 13.50

3523—Miss Annie Jacks
Commission on advertising orders..... 19.62

3524—Shanks Music & Jewelry Co.
1—52" x 72" screen, case for screen; 1 Model 40B Victor projector; 1 Model O Amplifier; 2 Model J speakers; 2 microphones; 2 floor stands; 1 mixing device; —25 microphone extensions; 2—50' acoustic extensions; covers for speakers and projectors; 3½ lens and express charges 582.52

3525—Ansley Hotel
Balance due on luncheon for the Committee on Medical Preparedness..... 26.10

3526—Bryan, Middlebrooks & Carter, Attys.
Copy of briefs of suit of Mabry, et al, vs. Georgia State Board of Medical Examiners—mailed to the Bureau of Medicine and Legislation of the American Medical Association..... 10.00

3527—Cash
Post office order and fee to copyright The Journal 2.06

3528—L. F. Livingston, Pastmaster
Postage 30.00

3529—Earl Byrdsong
Finishing floors, walls and ceiling with four hands to help move..... 31.30

3530—Garlington-Harwick Co.
Rent from September, 1940 to January 9, 1941..... 100.00

3531—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the November, 1940 issue of The Journal 324.96

3532—L. F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3533—Southern Press Clipping Bureau
News clippings for October and November, 1940 ..... 10.00

3534—Southern Bell Tel. & Tel. Co.
Telephone account to November 11, 1940 ..... 6.63

3535—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for November, 1940 ..... 200.00

3536—H. L. Rowe
Salary for Executive Secretary for November, 1940 ..... 192.50

3537—L. F. Livingston, Postmaster
Postage 30.00

3538—Shaw-Walker
Three Steel filing cabinets 83.51

3539—Bryan, Middlebrooks & Carter, Attys.
Suit of Dunning vs. Dr. John Bush, Columbus, one-half fee for Foley & Chappell; court reporter; and expenses of the Association's attorney 193.35

3540—Miss Annie Jacks
Commission on advertising order..... 60.00

3541—Mrs. Felton Knight
Stenographic work for Committee on Medical Preparedness 25.00

3542—L. F. Livingston, Postmaster
Deposit for postage due account..... 10.00

3543—Southern Bell Tel. & Tel. Co.
Telephone account to December 11,

1940 ..... 8.88

3544—Darby Printing Co.
Printing 600 copies of the December issue of the Medical News..... 21.00

3545—Western Union Telegraph Co.
Telegraph account to December 17, 1940 ..... 2.90

3546—Photo Process Engraving Co.
Cuts for illustrations 15.19

3547—Earl Byrdsong
Special janitor's work 2.50

3548—Cash
Post office order and fee to copyright The Journal 2.06

3459—L. F. Livington, Postmaster
Postage 30.00

3550—Walter W. Brown Publishing Co.
Printing and mailing 2,350 copies of the December, 1940 issue of The Journal 330.52

3551—Ansley Hotel
Expenses of the Committee on Medical Preparedness 36.30

3552—L. F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3553—Addressograph Sales Agency
Addressograph ribbons and work on graphotype machine 2.90

3554—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for December, 1940 ..... 200.00

3555—H. L. Rowe
Salary for Executive Secretary for December, 1940 ..... 192.50

3556—Edgar H. Greene, M.D.
Postage for Committee on Medical Preparedness from November 1, 1940 to December 31, 1940..... 16.08

3557—Electrical Repair & Service Co.
Flourescent light and other material installed in wiring office including graphotype and other connections..... 18.80

3558—Dahl's—Florist
Floral offering for Dr. E. A. Hines, secretary of the South Carolina Medical Association 8.00

3559—Ansley Hotel
Balance on the account for the Committee on Medical Preparedness..... 6.95

3560—L. F. Livingston, Postmaster
Postage 30.00

3561—Cash
Post office order and fee to copyright The Journal 2.06

3562—Miss Annie Jacks
Commission on advertising orders..... 42.50

3563—Atlanta Envelope Co.
9,450 Envelopes for mailing The Journal 32.32

3564—Darby Printing Co.
Printing 600 copies of the January, 1940 issue of The Medical News..... 21.00

3565—Southern Bell Tel. & Tel. Co.
Telephone account to January 11, 1941 ..... 6.00

3566—Garlington-Harwick Co.
Rent from January 9 to May 9, 1931..... 100.00

3567—S. H. Benedict
200 floor prints of the space in the Macon Municipal Auditorium to be used for commercial exhibits..... 26.20

3568—Walter W. Brown Publishing Co.
Printing and mail 2,275 copies of the January, 1940 issue of The Journal 306.68

3568—L. F. Livingston, Postmaster
Postage 30.00

3570—Photo Process Engraving Co.
Cuts for illustrations 76.35

3751—Walter W. Brown Publishing Co.
2,000 statements blanks 9.85

3572—Southern Press Clipping Bureau
News clippings for December and January, 1940-41 ..... 10.00

3573—Ivan Allen-Marshall Co.
Wrapping paper, pencils and stamp pad ink 2.15

3524—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for January, 1941 ..... 200.00

3575—H. L. Rowe
Salary for Executive Secretary for January, 1941 ..... 192.50

3576—Atlanta Biltmore Hotel
Expenses for Committee on Post-Graduate Study — Dr. G. Lombard Kelly, Chairman 18.25

3577—Bryan, Middlebrooks & Carter, Attys.
Retainer for attorneys for January 1, 1941 to December 31, 1941..... 1,000.00

3578—L. F. Livingston, Postmaster
Postage 30.00

3579—Miss Annie Jacks
Commission on advertising orders..... 18.75

3580—Standard Federal Savings & Loan Assn.
Deposit on savings account $2,802.68)
(This is only a transfer in the account and is not to be classified as an expenditure.)

3581—Darby Printing Co.
Printing the February and March, 1941 issues of the Medical News..... 42.00

3582—Walter W. Brown Publishing Co.
Statements for the Public Relations Bureau 7.00

3583—Herff-Jones Co.
Gold Key for J. C. Patterson, M.D., president, 1940-1941 ..... 8.27

3584—Southern Bell Tel. & Tel. Co.
Telephone account to February 11, 1941 ..... 12.83

3585—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for February, 1941 ..... 200.00

3586—H. L. Rowe
Salary for Executive Secretary for February, 1941 ..... 192.50

3587—Southern Engraving Co.
Cuts for illustrations 18.43

3588—Grady N. Coker, M.D.
Expenses incurred for the Committee on Public Policy and Legislation during the session of the Legislature 20.88

3589—Cash
Post office order and fee to copyright The Journal 2.06

3590—L. F. Livingston, Postmaster
Postage 30.00

3591—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the February, 1941 issue of The Journal 306.68

3592—Strickland Film Co.
Projector lamp for lantern slides, other lamps, fuses, belts, pilot lamps, B. & H. splicer and cell 20.11

3593—Ansley Hotel
Expenses incurred for the Committee on Public Policy and Legislation 10.34

3594—L. F. Livingston, Postmaster
Postage 30.00

3596—Cash
Post office order and fee to copyright The Journal 2.06

3597—Walter W. Brown Publishing Co.
Printing and mailing 2,275 copies of the March, 1940 issue of The Journal 306.68

3598—Miss May Ferguson
Stenographic work for the Committee on Public Policy and Legislation 10.75

3599—Grover Middlebrooks, Atty.
Expense to, at and from Dublin to take depositions in suit of Curl vs. A. T. Coleman 15.40

3600—L. F. Livingston, Postmaster
Deposit for postage to mail The Journal 25.00

3601—Southern Bell Tel. & Tel. Co.
Telephone account to March 11, 1941 6.00

3602—Southern Press Clipping Bureau
News clippings for February and March, 1941 ..... 10.00

3603—A. B. Dick Co.
Service charge on mimeograph machine 9.00

3604—Edgar D. Shanks, M.D.
Salary for Secretary-Treasurer for March, 1941 ..... 200.00

3605—H. L. Rowe
Salary for Executive Secretary for March, 1941 ..... 192.50

3606—L. F. Livingston, Postmaster
Postage 30.00

3607—Edgar H. Greene, M.D.
Postage used for the Committee on Medical Preparedness from January 1 to March 31, 1941 ..... 16.64

3608—Photo Process Engraving Co.
Cuts for illustrations of report by Dr. H. F. Sharpley, Jr., chairman of the Committee for the Study of Maternal Mortality and Infant Deaths 12.78

3609—Darby Printing Co.
Printing 600 copies of the April, 1941 issue of the Medical News 21.00

3610—Southern Engraving Co.
Cuts for photostatic copies of the proceedings of the organization meeting of the Association held in Macon in March, 1849 ..... 136.16

3611—Miss Annie Jacks
Commission on advertising order 21.00

3612—Cash
Post office order and fee to copyright The Journal 2.06

3613—L. F. Livingston, Postmaster
Postage 30.00

3614—Western Union Tel. Co.
Telegraph account to April 1, 1941 ..... 1.23

3615—The Sommer Badge Mfg. Co.
Badges for the Macon session, April 23-26, 1941 ..... 51.06

3616—William B. Porter, M.D.
Expenses and honorarium for conducting seminar at Waycross 138.40

3617—Edwin P. Lehman, M.D.
Expenses and honorarium for conducting seminar at Waycross 148.45

3618—Bryan, Middlebrooks & Carter, Attys.
Certified copy and cost of renewal of the Charter of the Medical Association of Georgia, advertising and the amount paid the Secretary of State 33.80

3619—Walter W. Brown Publishing Co.
Printing and mailing 2,500 copies of the April, 1941 issue of The Journal—128 pages 607.36

April 2, 1941—Check, W. C. McGeary, Madison, returned unpaid, paid later 35.00

February 27, 1941—Check, Eustace A. Allen, Atlanta, returned unpaid, paid later 10.34

February 27, 1941—Check, John D. Blackburn, Thomaston, returned unpaid, paid later 14.00

Exchange charged by the Fulton National Bank, Atlanta, from April 1, 1940 to April 30, 1941 ..... 10.63

Total $18,203.75

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
Executive Secretary—Durice Dickerson, R.N., Atlanta

131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

INTEGRATION OF HEALTH INTO NURSES' BASIC TRAINING

Theodora Floyd, M.A., R.N.
Atlanta
Consultant, Maternal and Child Health
Georgia Department of Public Health

The educational supervisor of the board of nurses examiners requested that the State Department of Health sponsor a series of twelve lectures on public health nursing for the senior students of six nurses' training schools in Atlanta. The schools included Grady, both white and colored, Emory University, Georgia Baptist, Piedmont, St. Joseph's Infirmary, and Crawford W. Long. The purpose and outline of the course were discussed with the directors and educators in the aforementioned schools of nursing and were acceptable to them. There were two well defined purposes in mind in planning this course which were as follows:

1. To round out the student's training by giving her a wider knowledge of the social and emotional factors in family and community life which affect the health of the individual; the available community resources and their use; the utilization of opportunities for teaching the patient how to take care of himself after he has returned home.
2. To help the student nurse determine whether public health is the branch of nursing for which she is best fitted and in which she is likely to have the greatest interest and the most lasting satisfaction.

The course covered the following topics: place of public health nursing in the whole public health program; history of public health nursing; types of organizations, public and private; change in emphasis, or evolution of modern family public health nurse; her qualifications, responsibilities and duties; the nurse as a teacher of health in hospital and in the home; application of principles of public health nursing in the various services such as maternity and child health, school, tuberculosis, communicable diseases, venereal diseases, and industrial hygiene.

The lectures were given by members of the different divisions of the State Department of Public Health and the director of nursing of the Metropolitan Nursing Service. The demonstration of bag technic was given by a nurse of the Fulton County Health Department. The lectures were one hour long and were given once a week.

There were two very difficult problems in connection with giving this course; one was the size of the class, there were 119 students; the other was the fact that it had to be given at night after a long day of work. The size of the class made it almost impossible to have much discussion on the part of the students or to have observations of conferences, clinics, or visits in the home with the public health nurse. Any attempt at integration of public health nursing into the basic course under the above conditions would appear to be futile, but an evaluation by the students by means of answering questionnaires showed that some usable learnings were gleaned from it.

The following is a summary of the students' replies as to the ways the course had helped them while working in a hospital. The replies are arranged according to the frequency with which they occurred and are as follows:

1. More comprehensive understanding of the hospital patient's problems, emotional as well as physical.
2. Appreciation of the need for teaching the patient before he leaves the hospital how to care for himself and also the community resources upon which he may call after his return home.
3. Knowledge of the danger of the patient to regress to the extent that illness is pleasanter than health, and the need for nursing care which will encourage the patient to return to normal living.
4. A better understanding of the home environment and its relation to the patient's illness.
5. A realization of the need for a more cooperative relationship between the hospital and the public health agency.

While a few students stated that they did not see how the course would help them while in the hospital, the estimate of the course as explained above represents the opinion of a large percentage of the students. About one-fourth of the students expressed a desire to become public health nurses.

There are several suggestions given in "A Curriculum Guide for Schools of Nursing"[1] for improved methods of integration of public health

(Continued on Page 291)

WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

President-Elect—Mrs. J. Lon King, 223 Buford Place, Macon.

First Vice-President—Mrs. W. A. Selman, 760 Penn Avenue, N. E., Atlanta.

Second Vice-President—Mrs. Fred Rawlings, Sandersville.

Third Vice-President—Mrs. J. R. McMichael, Quitman.

Recording Secretary—Mrs. Loren Gary, Jr., Shellman.

Treasurer—Mrs. Bruce Schaefer, Toccoa.

Corresponding Secretary—Mrs. Charles Usher, 6 East Liberty Street, Savannah.

Historian—Mrs. Ralph Freeman, Hoschton.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta

Fulton County Health Program

Several hundred Atlanta women who are leaders in matters pertaining to health attended the health forum sponsored by the Woman's Auxiliary to the Fulton County Medical Society at the Nurses' Home of the Crawford W. Long Memorial Hospital in March. Mrs. W. M. Dunn, chairman of health education, arranged the most interesting and instructive program, which featured talks by the following: Dr. C. C. Aven, "Public Health Service in Tuberculosis;" Robert Hudgens, "Convalescent Care"; Dr. J. F. Hackney, "The School Health Examination;" Dr. R. B. Schultz, "Nutrition in Georgia;" and Miss Ruth Butler, "Work of the Social Planning Council." Later the visitors were entertained at luncheon with Mrs. Edgar H. Greene, chairman of entertainment, and her committee in charge.

A short business session preceded the health meeting. Mrs. Olin S. Cofer, president, presided. Routine reports were given and plans discussed for the party on March 28 at the home of Dr. and Mrs. Cofer. The Auxiliary entertained new officers of the Fulton County Medical Society. It was announced that the Auxiliary had been invited to sponsor a series of lectures on musical appreciation to be given at Davison's by Mrs. W. M. Dunn, talented member of the Auxiliary. The Auxiliary will receive $100 for sponsoring the series, which members voted to do. Mrs. F. M. Barfield, state Doctors' Day chairman, announced that she had arranged a radio program over station WSB on March 31 to commemorate Doctors' Day.

Fulton County

The May meeting of the Woman's Auxiliary to the Fulton County Medical Society, held at Nurses Home of the Crawford W. Long Memorial Hospital in Atlanta, was featured by the election of officers for the ensuing year. Those elected were: Mrs. Murdock Equen, president; Mrs. Edgar H. Greene, president-elect; Mrs. W. M. Dunn, first vice-president; Mrs. H. Cliff Sauls, second vice-president; Mrs. Ross Brown, third vice-president; Mrs. Gaston Gay, recording secretary; Mrs. F. C. Holden, corresponding secretary; Mrs. A. B. Anderson, treasurer; Mrs. Jackson Landham, auditor; Mrs. Mason Lowance, historian; and Mrs. James N. Brawner, parliamentarian.

Mrs. Olin S. Cofer, president, presided over the meeting and Mrs. John Turner, treasurer, reported a total membership of 178 for the year. In the absence of Mrs. Forrest Barfield, Jane Todd Crawford chairman, Mrs. Walker L. Curtis presented an excellent program on this noted woman, the first to undergo an ovarectomy, the program having been arranged by Mrs. Barfield. Mrs. Curtis gave the Auxiliary a beautiful scrap-book for clippings on Jane Todd Crawford as a gift from Mrs. Barfield. Mrs. H. Cliff Sauls and Mrs. Edgar H. Greene were appointed delegates to the state convention in Macon with Mrs. O. H. Matthews and Mrs. Dewey Nabors as alternates. The hospital committee, Mrs. Stacey Howell, chairman, had charge of the luncheon.

The April meeting of the Fulton County Auxiliary was held at the Nurses' Home of the Crawford W. Long Memorial Hospital in Atlanta. Mrs. Olin S. Cofer, president, presided. Splendid reports of the year's work were given, each officer and chairman outlined in detail the progress that had been accomplished in the carrying out of all local, state and national objectives. A nominating committee, composed of Mrs. O. H. Matthews, chairman, Mrs. Forrest M. Barfield, Mrs. Bernard L. Shackleford, Mrs. Calvin Stewart and Mrs. Mason Lowance, was elected to bring in the slate of new officers at the May meeting. Reports were made of the beautiful party at which the Auxiliary entertained new officers of the Fulton County Medical Society on March 28 at the home of Dr. and Mrs. Olin S. Cofer, and on this occasion also celebrated Doctors' Day. Mrs. V. E. Holcombe, of Charleston, W. Va., president of the Woman's Auxiliary to the American Medical Association, was a distinguished guest. Mrs. Hulett Askew, chairman of the decorations committee, and her group had charge of the luncheon following the business meeting.

Fifth District

The Woman's Auxiliary to the Fifth District Medical Society met on April 17 at the Nurses' Home of the Crawford W. Long Memorial Hospital in Atlanta. Prior to the business session

and program, the Auxiliary had charge of a delightful dinner attended by 200 members of the society and Auxiliary. Mrs. C. W. Roberts, wife of the president of the Fifth District Medical Society, and Mrs. Olin S. Cofer, president of the Woman's Auxiliary to the Fulton County Medical Society, presided at the beautifully appointed coffee table.

The business meeting, over which the president, Mrs. J. Harry Rogers, presided. opened with the Lord's Prayer. Mrs. Rogers introduced one of the Auxiliary's members, Mrs. Eustace Allen, who is third vice-president of the Woman's Auxiliary to the American Medical Association, who welcomed the guests. Mrs. Harvey Griggs, of Conyers, recording secretary, read the minutes of the last meeting, which were approved.

Dr. Herbert Acuff, of Knoxville, Tenn., gave an excellent talk on "Ten Danger Signals for Women" and Dr. J. C. Patterson, of Cuthbert, president of the Medical Association of Georgia, spoke on the progress that has been made in medicine. Mrs. H. G. Banister, of Ila. president of the Woman's Auxiliary to the Medical Association of Georgia, and Mrs. Lee Howard, of Savannah, president-elect, were distinguished guests, the former talked on "The Future of the Auxiliary" and the latter on "The Importance of a Constitution and By-Laws."

Ware County

The Woman's Auxiliary to the Ware County Medical Society, assisted by the Junior Woman's Club, waged an active enlistment drive in Waycross for the Woman's Field Army to Fight Cancer. Educational articles on the subject of cancer were published in the Waycross Journal-Herald and a radio program was given. Mrs. H. B. Ritchie, of Athens, commander of the Georgia division and regional deputy commander for several southeastern states. has stressed the fact that cancer control work is being intensified in Georgia as a vital part of the national defense program.

NURSES' ASSOCIATION
INTREGRATION OF HEALTH INTO NURSES' BASIC TRAINING

(Continued from Page 289)

into the basic course. A summary of these suggestions follows:

1. Incorporation of the health and social aspects of nursing in the curriculum throughout the entire basic course. To do this successfully there should be a nurse with public health training and experience on the hospital staff whose functional areas would include supervision of out-patient clinics and instruction, both theoretical and practical, in the school of nursing. Such a plan would necessitate close cooperation between the school of nursing. out-patient clinic personnel and social service department.

2. Two months affiliation in a community health agency whose program includes bedside nursing as well as health instruction and supervision. This is a more meaningful experience when the social and health aspects of nursing have been emphasized throughout the training period.

3. Three months experience in the out-patient department of the hospital which should be well supervised, preferably by a nurse with public health nursing background. There are several values which may be derived from such an experience:

a. It provides an opportunity to round out the student's knowledge of the medical aspects of illness by observing its various stages from onset through convalescence.

b. Through a well organized follow-up service of certain clinics, the student may be made aware of the variety of adjustments that illness demands of the patient and his family.

c. It enriches the nurses's knowledge of community resources that may be called upon to aid the hospital in restoring the patient to health.

d. Students should be able to develop teaching skills which might be utilized with patients who represent stages and types of illness that are more commonly cared for in the home than in the hospital.

It is sincerely hoped by the writer that some form of integration of health into the nurse's basic training may be worked out in each of the seventeen accredited schools for nurses in Georgia. Not only because it will help them to give a better service to the patients whom they care for in the hospital but also to give them a background which will be helpful should they later desire to join the ranks of the 23,000 nurses in the United States who are doing some form of public health nursing.

1. "A Curriculum Guide for Schools of Nursing," National League of Nursing Education.

NEWS ITEMS

Dr. Joseph F. McCarthy, Professor of Urology at the New York Polyclinic Medical School and Hospital, New York City, was awarded the Francis Amory prize by the American Academy of Arts and Sciences, for his work in Urology. Dr. Samuel J. Kopetzky, Professor Otolaryngology, has been elected President of the Medical Society of the State of New York. Dr. Maximilian A. Ramirez, Professor of Medicine, has been elected President of the Medical Society of the County of New York.

Dr. E. R. Watson, Atlanta, Division of Maternal and Child Health, State Department of Public Health, was the principal speaker at the public forum held in the Gainesville High School.

Dr. C. W. Roberts, Atlanta, spoke on *Cancer Control* at Martin Institute Auditorium, Jefferson, April 23.

Dr. Martin Van Teem, Marietta, has been elected to fellowship in the American College of Physicians.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

CURRENT COMMENTS ON CONGENITAL SYPHILIS

There is reason to assume that inadequate treatment of the syphilitic expectant mothers might serve to increase the number of living congenital syphilitics rather than reduce them. Such a statement appears to be paradoxical because treatment of the mother during pregnancy is said to prevent infection of the child during its interuterine life. The statement is paradoxical because of the use of the phrase of "inadequate treatment." Everyone is familiar with the fact that a large number of pregnancies among syphilitic women result in abortions, miscarriages, stillbirths or syphilitic newborns that succumb within a few days or weeks, or perhaps months, following birth. It would appear that the number of children with congenital syphilis might increase for the reason that expectant mothers inadequately treated will in many instances give birth to children with mild or a camouflaged type of syphilis, whereas in the past when no treatment was administered the problem has tended to solve itself partially through the medium of abortions, miscarriages, stillbirths and syphilitic neonatal deaths.

These statements should not be misinterpreted. No one would argue that inadequate treatment is worse than no treatment at all. However, the difference in results obtained with the use of adequate treatment of the expectant mother should urge us to assert ourselves in reducing the number of cases who receive inadequate treatment, regardless of where the fault lies. There can be no doubt that the big factor concerns the lack of information on the part of the patient about the need and importance of antisyphilitic therapy.

The primary consideration in the treatment of prenatal syphilis is concerned with the prevention of infection in the fetus. Authorities agree that arsenicals offer the best means of preventing the transmission of syphilis to the child. In the recent past some expectant mothers have been treated with bismuth, thus delaying the use of the one drug that promises the best results. Bismuth is seldom used if the patient is treated only during the last four or five months of gestation. In those cases that report during the first few months of pregnancy, bismuth is used for short intervals, but never for the initial or final course. Arsenic in the form of neoarsphenamine is considered the drug of choice and the dosage is usually 0.45 gram.

Congenital syphilis is a disease that is probably as preventable as smallpox. Everyone will admit that this prevention is not only practical but also possible. When the results of preventive measures are compared with the results obtained when therapy is instituted after the child is born, the latter, we must admit, is disappointing. However, until it is possible to treat the expectant mother adequately, we should not fail to institute treatment of the child as soon as the diagnosis can be made. Both the public and the physician have become very suspicious of acquired syphilis, regardless of what symptoms are manifested. In the case of the child with congenital syphilis this is not true. Most of the children now under treatment have some clinical evidence of the disease and frequently serologic test is not used, unless there are some stigmas which denote the probable diagnosis. Our index of suspicions in the case of congenital syphilis should be much higher than at present. One reason for this is the fact that inadequate treatment of the expectant mother and the development of a certain degree of immunity has resulted in the presence of syphilis among children, peculiar in that it does not necessarily produce the Hutchinsonian triad or other stigmas that are associated with the disease.

The fact that approximately one of every thirteen white and one of every four colored prenatals attending the prenatal clinics conducted in cooperation with the Georgia Department of Public Health are found to be syphilitic causes many to wonder what becomes of the children borne by these mothers. If this condition has existed for a number of years, the accumulated total congenital syphilitics is far beyond those now under treatment. During 1938 the total number of pregnancies among white mothers in Georgia, exclusive of abortions and miscarriages, totaled about 40,000, while those among Negroes were approximately 28,000. If the percentage of syphilitics attending the prenatal centers were applied to the total number of pregnancies, according to color, we would find that over 9,000 syphilitic mothers become pregnant each year. This figure is too high for the reason that white cases in general do not by any means average 7 per cent. But even if these figures were reduced to half, we would expect in the neighborhood of 4,500 births each year among syphilitic mothers. These statistics are not offered with the idea of establishing an accurate incidence but rather to point out the extensiveness of the problem. Naturally, stillbirths, miscarriages and syphilitic neonatal

deaths take their share. A large number of syphilitic expectant mothers received sufficient treatment to prevent an interuterine infection. However, there are thousands of expectant mothers who have received inadequate treatment, but which has been sufficient to minimize somewhat the effects of the disease. and as a result many of these children present no recognizable signs.

It hardly seems fair to allow a child born of a syphilitic mother to go untreated until clinical signs and symptoms make their appearance, because delay to this extent frequently means poor results. Physicians should make a diligent effort to determine whether or not a child born of a syphilitic mother is infected. This will require knowledge, perseverance. technic and a cooperative effort on the part of physicians and public health workers. The physicians attending prenatal clinics should insist that public health nurses follow up children born of these mothers, and that an attempt be made to diagnose these cases, and that early treatment be instituted. To this end we must strive if the blindness, deafness, insanity and other physical handicaps which account for the expenditure of the taxpayers' money are to be avoided. That this should be the concern of the physician rendering prenatal care is incontestable, for frequently he is the only one who might know that this particular child was a potential syphilitic.

The diagnosis of congenital syphilis during the first few weeks of life has offered an almost insurmountable difficulty. However, in the last few years valuable information concerning the use of diagnostic measures has been added to our storehouse of knowledge. We should remember that a positive blood test during the first weeks of life is not diagnostic because the reagin present in the mother's blood and giving rise to a positive serologic test may filter through and enter the child's circulation, and thus give rise to a positive test in the child without the spirochetes having entered the fetal circulation. We know from experience that treatment of the expectant mother frequently does not render her serologic test negative, and for this reason we might have a high incidence of positive blood tests in the early weeks of life among those children whose mothers received adequate treatment during pregnancy. On the other hand, the presence of a negative blood test during the first few weeks of life does not exclude syphilis, for not infrequently the child's serologic test will not become positive until after the first few weeks or months. This places the physician in a dilemma, if he depends upon a serologic test for diagnosis. What can he do? He can observe a child with a positive blood test, and if it does not become negative he has definite evidence to support his diagnosis. If, during the early months of life, repeated tests on a child are negative, he has definite evidence to refute the diagnosis of syphilis. One might ask why not wait and secure a test, perhaps in six weeks or two months. This would most certainly be better than depending upon a test immediately after birth, but repeated tests early and late frequently aid in making a diagnosis. The use of cord blood is likewise of limited value, and although there is no reason why it should not be routine. it cannot be depended upon as a diagnostic measure in all cases. It should be re-emphasized that the x-ray offers diagnostic aid, but that its value is somewhat dependent upon a child's age and an accurate interpretation.

To place upon the child the stigma of syphilis, and to inaugurate an expensive, prolonged and tedious therapeutic program, without attempting to establish a diagnosis, can hardly be justified. The presence of syphilis should not be assumed and treatment begun until a diligent effort has been made to ascertain the correct diagnosis. If no attempt is made to determine the presence of syphilis, one is most certain to treat both infected and uninfected children. Some authorities exhort this practice. In my opinion this is not consistent with the high standards of medical practice.

Many physicians at this point would like to inform me that securing blood tests on children, particularly infants, is not practical. That it can be done has been demonstrated in the various clinics where such diagnostic measures have been used for years. It does require venipuncture technic. Most physicians prefer the exterior jugular vein from which to secure blood specimens. To do this successfully the child should be "mummied," placed on its back with the head extended over the end of a table. An assistant who knows how to help the physician should be present. thereby leaving him free to manipulate the syringe and at the same time preventing the child's head from constantly moving, which would necessarily result in defeat. The mother is a poor aid in this respect. She is too excited about her child to keep her mind on what she is trying to do. Her sympathy for the child frequently causes her to refrain from returning for further care. It is not good practice to allow the mother in the room during this procedure, because her sympathetic reaction is undesirable. It is important to explain to the mother that a puncture in the neck is necessary in the child, because frequently, if she is not forewarned of this, she is very surprised and indignant when the child is placed in her arms with a bleeding point in the neck. This probably can be accounted for by the fact that she expects the puncture to be made in the antecubital fossa, as was done for her.

In the treatment of congenital syphilitics, neoarsphenamine and sulpharsphenamine are still considered the best drugs, the former taking precedence over the latter, unless it is necessary to treat intramuscularly. There is a great deal of disagreement concerning stovarsol. Some authorities say its value has not been established. That it produces good results is upheld by many. That there are frequently toxic manifestations is not necessarily true in the experience of those who exert care in the accurate determination of dosage, and who can see the patient at frequent intervals. Drugs have been made available to physicians throughout the state, and of course these may be used to treat children. A pamphlet has been prepared outlining the treatment of congenital syphilitics, which quite naturally does not agree with all who have expressed themselves, but it is available to any physician who would like to obtain a copy. It was not intended that this article should deal with specific diagnostic and therapeutic problems, but rather that it attempt to focus on congenital syphilis the recognition which it deserves. This, of course, means the treatment of prenatal syphilitics and the treatment of congenital syphilitics.

EDWIN R. WATSON, M.D., *Associate Director*, Division of Maternal and Child Health.

NEWS ITEMS

THE FULTON COUNTY MEDICAL SOCIETY met at the Nurses' Home, Crawford W. Long Memorial Hospital, Atlanta, May 5. Dr. Fred R. Rudder, chairman of the Fifth District, made a special report for the Committee on Appendicitis. Dr. Jeff L. Richardson spoke on *Tachycardia*, discussed by Dr. Wm. R. Crowe. Dr. R. A. Bartholomew spoke on *Interpretation of Blood Pressure Behavior During Pregnancy and Puerperium*, discussed by Dr. O. H. Matthews and Dr. Alton V. Hallum. The meeting held on May 19 carried the following titles of papers and addresses: "The Six Venereal Diseases" by Dr. Gordon G. Allison, discussed by Dr. Charles Eberhart and Dr. T. F. Sellers. "Carcinoma of the Left Colon," Dr. George F. Eubanks, discussed by Dr. Lon Grove and Dr. Hugh Wood.

DR. AND MRS. D. H. GARRISON, Clarkesville, entertained the Habersham County Medical Society and Woman's Auxiliary in their home April 17.

DR. WILLIAM T. EDWARDS, JR., announces the opening of his office for the practice of diseases of the eye at 511 Medical Arts Building, Atlanta.

THE MONTHLY STAFF MEETING of Emory University Hospital met on May 7. Dr. George Lewis reported a case *Sulfhemoglobin in Relation to Hydrogen Sulfide and Sulfonamide Drugs;* Dr. J. E. Scarborough reported a case, *Melanoma of the Extremities.*

DR. JAMES E. PAULLIN, Atlanta, was chosen president-elect of the American College of Physicians at its annual convention in Boston, Mass., April 24.

DR. EDWARD Y. WALKER, formerly of Atlanta, accepted a position on the staff of the Baldwin Memorial Hospital at Milledgeville.

DR. JOHN W. ODEN, formerly of Milledgeville, has been appointed medical superintendent for Georgia Training School for Mental Defectives at Gracewood.

DR. L. P. LONGINO has been appointed superintendent of the Milledgeville State Hospital, Milledgeville; Dr. Edward W. Schwall has been appointed clinical director.

DR. E. A. WILCOX spoke on cancer before a meeting of the Augusta Optimist Club on May 7.

DR. MORRIS FISHBEIN, Chicago, Editor of The Journal of the American Medical Association, spoke on *Medicine and the Changing Social Order* at Columbus, May 10. The Government Committee of the Julius Friedlaender Fund sponsored the address.

DR. E. H. LAMB, Cornelia, assisted by his daughter, Mrs. Bill Purcell, Toccoa, entertained the members of the Habersham County Medical Society and their wives in the home of Dr. Lamb, May 8.

DR. M. F. COCHRAN, Newnan, has just established a clinic in a new building on Jefferson Street. He is prepared to make examinations and operations.

THE FULTON COUNTY MEDICAL SOCIETY met in the Nurses' Home at the Crawford W. Long Memorial Hospital, Atlanta, June 2. Dr. Wm. O. Martin read a paper entitled *The Correction of Crossed Eyes;* discussed by Dr. Herschel Crawford and Dr. William Kiser. Dr. Joseph C. Massee showed *Methods of Recording Heart Sounds with Phonocardiography;* discussed by Dr. C. W. Strickler, Jr., and Dr. L. Minor Blackford. The Society held its second semi-monthly meeting on June 16. The following titles of papers were on the program: *Treatment of Fungus Infections* by Dr. Wm. L. Dobes; *Treatment of Soft Corns*, Dr. Joseph Boland; *The Importance of the Uretero-Pyelogram in the Early Diagnosis of Kidney Disease*, Dr. Reese C. Coleman; *The Use of Mecholyl in Pelvic Infectious Diseases*, Dr. Ben Reed; *Cancer of the Colon*, Dr. A. B. Anderson; Dr. R. C. Davis, *Carbohydrate Metabolism in Obesity.*

THE RANDOLPH-TERRELL COUNTIES MEDICAL SOCIETY met at the Patterson Hospital, Cuthbert, May 2.

DR. R. L. CARTER AND DR. JOHN D. BLACKBURN, both of Thomaston, were guest speakers at a meeting of the Thomaston Junior Chamber of Commerce on April 17.

DR. E. G. KIRBY, Bowdon, has been re-elected president of the Georgia Educational Association at its meeting recently held in Augusta.

DR. PETER B. WRIGHT, Augusta, spoke on cancer before a meeting of the Augusta Exchange Club on May 8.

Dr. J. E. Mercer, Vidalia, has completed a building to be used as reception room, private offices and clinic.

The Ware County Medical Society by unanimous vote has expressed appreciation to Dr. W. F. Reavis, Dr. B. H. Minchew, Dr. C. A. Witmer and the Ware County Hospital for the magnificent success attained by the Post-graduate Seminar held here recently. The Society asked that such seminars be held periodically, once or twice each year.—Waycross Journal-Herald, May 8, 1941.

Dr. William G. Hamm, Atlanta, spoke on *Plastic Surgery* before a meeting of the Decatur Rotary Club on May 7.

The Georgia Medical Society, Savannah, met on May 26. Dr. S. F. Rosen read a paper entitled *The Skin and Industry—Illustrated with Lantern Slides;* discussed by Dr. C. F. Holton and Dr. Lawrence Lee. Motion picture was shown entitled, "Exploring with X-Rays."

The Georgia Pediatric Society elected officers at Macon during the annual session of the Medical Association of Georgia, May 13-16, 1941, as follows: Dr. E. N. Gleason, Savannah, president; Dr. F. B. Schley, Columbus, president-elect; Dr. Harry Lange, Atlanta, vice-president; Dr. Don F. Cathcart, Atlanta, secretary-treasurer. The Nominating Committee was composed of Dr. Ruskin King, Savannah; Dr. Lee Bivings, Atlanta; and Dr. W. C. Boswell, Macon.

Dr. Charles L. Ridley, Macon, has been elected president of the University of Georgia Alumni Association; Dr. John J. Pilcher, Wrens, vice-president; Dr. Henry A. Seaman, Waycross, second vice-president; Dr. Louis F. Lanier, Sylvania, and Dr. Stacy C. Howell, Atlanta, members of the Board of Managers.

The staff of the Crawford W. Long Memorial Hospital, Atlanta, met on May 8. Dr. J. L. Henry reported a case, *Staphylococcic Septicemia Treated with Sulfamethylthiazol and Sulfathiazole;* discussed by Dr. Shelley C. Davis. The patient was presented before the staff.

Dr. Ralph N. Johnson announces the removal of his office to the McCall Hospital, Rome.

The Ware County Medical Society met at the Ware Hotel, Waycross, June 4. Dr. C. M. Stephens and Dr. A. W. DeLoach were hosts at dinner. Dr. L. S. Laffitte, Jacksonville, Fla., was the principal speaker.

OBITUARY

Dr. Elias W. Ragsdale, Tignall; member; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1890; aged 71; died at his home on April 26, 1941, of heart disease. He was a native of Cherokee County, began practice in Newton County, then moved to Tignall where he practiced for thirty-four years. Dr. Ragsdale had rendered long and efficient service to the people of his community. He was a member of the Wilkes County Medical Society, F. & A. M., and Baptist Church. Surviving him are his widow, two daughters, Mrs. George Sherrill, Columbia, S. C.; and Mrs. Norman Jackson, Washington, Ga. Rev. King I. Evans, Rev. Hugh Landham and Rev Glass officiated at the funeral services conducted at Tignall Baptist Church.

Dr. James Madison Horne, Finleyson; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1895; aged 74; died on April 26, 1941. He was a native of Jasper County, Fla. Dr. Horne began practice at Finleyson and his entire professional career was in Finleyson and surrounding territory. He was also engaged in the drug and mercantile business. He was faithful and loyal to his friends and patients. He was a member of several secret organizations and the Mt. Pleasant Church. Surviving him are his widow, three daughters, Mrs. J. T. Hammond, Atlanta; Mrs. Herschel Fleeman, Jacksonville, Fla.; and Mrs. M. E. Hardy, Douglas; two sons, Joseph Milton Horne, Orlando, Fla., and Allen Horne, Jacksonville Beach, Fla. Rev. Aquilla Chamblee and Rev. L. B. McMichael officiated at the funeral services conducted from Mt. Pleasant Church. Burial was in Bethlehem Cemetery near Fitzgerald.

Dr. James Henry Johnson. Columbus; member; Southern Medical College, Atlanta, 1891; aged 75; died on May 11, 1941. He was a native of Upson County. After he graduated in medicine, he began practice in Pike County, later moved to Raleigh, Ga., and in 1901 moved to Columbus. Dr. Johnson made a wonderful success in the practice of obstetrics. He enjoyed the esteem of many people. He was a member of the Muscogee County Medical Society, American Medical Association, F. & A. M., Shrine and Rose Hill Baptist Church. Surviving him are his widow; two daughters, Mrs. Bettie Gilmore, Memphis, Tenn.; and Mrs. Frank Staggs, Columbia; two sons, J. E. and C. D. Johnson, Columbus. Rev. Geo. C. Gibson officiated at the funeral services conducted at the Striffler Mortuary. Burial was in Riverdale Cemetery.

Dr. Welcolm Tol Kelley, Unadilla; University of Georgia School of Medicine, Augusta, 1937; aged 30; died May 8, 1941, from injuries received when the car he was driving crashed into a truck on the highway near Cordele. He was a native of Coffee County, Ala. Dr. Kelley began practice at Baxley and moved to Unadilla about three months ago. Surviving him are his widow, and a year-old daughter, Emily. Funeral services were conducted in Unadilla. Interment was in Sunset Hill Cemetery at Valdosta.

Dr. Forrest Mullins Barfield, Atlanta; member; Emory University School of Medicine, Emory University, 1915; aged 50; died on April 17, 1941. He was a native of Troy, Ala. Dr. Barfield interned one year at the Southern Pacific Hospital, San Francisco; and one year at Grady Memorial Hospital, Atlanta. During the World War he served as lieutenant at Camp Gordon, Atlanta, then with the Emory Unit in France. Dr.

Barfield made an excellent record in the practice of general surgery. He was a staff member of the Georgia Baptist, Crawford W. Long Memorial, Piedmont, Emory University and St. Joseph's Infirmary hospitals; also a member of the Fulton County Medical Society, Chattahoochee Valley Medical Association, Southeastern Surgical Congress, Southern Medical Association, American College of Surgeons and the American Medical Association. Surviving him are his widow, mother, two sisters and three brothers. Rev. Lester Rumble officiated at the funeral services conducted at Spring Hill chapel. Interment was in West View Cemetery.

Dr. Ledford A. Williams, Abbeville; member; Emory University School of Medicine, Emory University, 1894; aged 75; died on May 13, 1941, at his home of pneumonia. He was a native of Gwinnett County. Dr. Williams began practice at Chauncey, then moved to Abbeville where he practiced for 37 years. He was mayor of Abbeville for 13 years and for a number of years served on the Abbeville Board of Education. Surviving him are three daughters, Mrs. Etta Lou Murray, Abbeville; Miss Salijo Williams, Jacksonville, Fla.; and Mrs. J. M. Peed, Waycross; three sons, J. K., K. P. and Judge Ross Williams, all of Miami, Fla. Rev. H. J. Johnston officiated at the funeral services conducted at the Abbeville Baptist Church. Burial was in the Stubbs Cemetery.

MEDICAL TECHNICIANS AND LABORATORY HELPERS NEEDED BY THE GOVERNMENT

The U. S. Civil Service Commission wishes to call your special attention to the examination announced on May 26, for Medical Technician and Junior Laboratory Helper. A similar examination announced in the fall of 1940 failed to produce enough qualified persons for these positions, and the Commission has found it necessary to re-announce the examination. Because of the need for qualified persons to carry on important work in connection with the National Defense work, applications will be accepted until further public notice.

Medical Technician positions pay from $1,620 to $2,000 a year; Junior Laboratory Helper positions, $1,440 a year. For Senior Medical Technician and Junior Laboratory Helper there are two optional subjects in which persons may qualify: General, and roentgenology. Persons applying for the full or assistant grade of Medical Technician may qualify also in surgery. Applicants must have had at least 14 units of high-school study; otherwise they must pass a written general test. Appropriate X-ray laboratory, clinical laboratory, or operating room experience is required. This must have been full-time paid experience. Completion of a 4-year college course with major study in biology, chemistry, physics, or medical technology may be substituted for part of the experience.

The need for Medical Technicians and Junior Laboratory Helpers in the National Defense program is immediate. Eligibles in the option *Surgical* are particularly needed. The Commission wishes to ask your cooperation in this recruiting program to secure persons who are qualified for and interested in this type of Government work.

Qualified persons should be urged to apply for further information on this examination at the office of the Secretary, Board of U. S. Civil Service Examiners, at any first- or second-class post office, or write to the Civil Service Commission, Washington, D. C.

CAMERON COLOR FLASH CLINICAL CAMERA
(Model No. 750)

A portable stream-lined Camera for medical, surgical, dental bacteriologic, biologic and other scientific photography in natural color or black and white. Makes endoscopic, orificial, surface, microscopic, portrait and general technical photography a simple, practical and inexpensive procedure. In addition to 35 millimeter colored film, black and white film of any type may also be used.

Supplied with anastigmat lens and adapter assemblies for photography at 3", 5", 6", 8", 12", 14", 19", 24", 60" (4-6') and 15 ft. to infinity. Special lenses for other distances obtainable. Equipped with 3 standard dry battery cells positioned inside housing for lighting the focusing lamp used to find and illuminate the area to be photographed and to actuate a standard photo-flash bulb used to take the picture, which bulb is also internally positioned for close up photography and endoscopic pictures, such as the sigmoid and other areas in the rectal tract, the cervix and other areas in the vaginal vault, interior of the abdomen or stomach through an open endoscopic tube, the ear drum, nasal passage, larynx, etc. Shutter is synchronized with the photo-flash bulb, and both are actuated by either trigger or standard cable release provided on side of camera.

Instrument supplied complete with convenient Conical Adapter for photography with standard Cameron scopes, and a synchronized Clamp-on Reflector having 16 feet of rubber covered cord and connection for using photo-flash bulb in making pictures at distances over 12" with external illumination. A special Adjustable Ring Adapter, Microscope Adapter, Cliniscope (slide viewer), and other accessories optional at slight additional cost.

Camera weighs only three pounds. Provided with pebbled finish genuine carrying case 9" x 7" x 4". Cameron Surgical Specialty Company, 666 West Division Street, Chicago, Ill.

UNITED CHINA RELIEF RUSHES IMPORTANT NEW AMERICAN DRUG TO CHINA BY CLIPPER TO CHECK SPREAD OF DYSENTERY

Five thousand tablets of sulfaguanidine, a newly discovered drug-compound used in the treatment of dysentery, was rushed to China May 27 by China Clipper from San Francisco to check the spread of dysentery in the Chinese armies, the American Bureau for Medical Aid to China, one of the eight agencies coordinating their work in the United China Relief campaign announced.

The clipper shipment follows a major gift of 300,000 tablets which sailed from San Francisco a short time ago.

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THE VAGINAL SMEAR AS A GUIDE TO ESTROGENIC THERAPY

ROBERT B. GREENBLATT, M.D.
Augusta

Woman, because of her biologic make-up and her psychologic background, approaches the fourth decade of life with uneasy and uncertain tread. It is the decade of introspection, of soul-searching, of inventories. She analyzes her limitations, her frustrations, her unfulfilled ambitions, her secret sorrows, the fading beauty of her body. It is a period of boredom, of anxiety and phobias and cancer fears, of waning romanticism. It is a period of emotional irritability that appears at a time when the autonomic nervous system is most unstable and vulnerable and at a time when declining ovarian activity is associated with a general glandular imbalance. It is little wonder then that the strain of psychosexual upheaval connected with this period brings with it a train of varied vegetative symptoms which one physician may stamp as psychoneurotic and another as menopausal.

The woman in the third to fifth decade of life who seeks a physician's aid because of such nervous and somatic symptoms as hot flushes, chills, sweats, vertigo, cardiovascular disturbances, insomnia, anxiety, headaches and irascibility may belong to one of three groups:

(a) The syndrome may be purely one of autonomic imbalance brought on by the stress and strain of this period.

(b) The syndrome may be due purely to declining ovarian function with attendant hyperfunction of the pituitary gland.

(c) The syndrome may be the result of both "a" and "b", with or without other co-incident diseases.

In the therapeutic management of these patients it is important to delineate those of one group from the other. Estrogenic therapy administered in proper dosage to patients in group "b" is universally attended by excellent results but frequently proves disappointing when administered to those in group "a". This accounts for the many cases which are reported as refractive or unresponsive to endocrine therapy. On the other hand, when psychotherapy and sedation are applied to the patients of these groups, those in group "a" are most likely to respond favorably while proving insufficient for those in group "b". It is for this reason that the impression has gained ground that equally good (or poor) results may be obtained with phenobarbital as with hormonal therapy[1].

The subjective symptoms of the various groups are not so definitive as to permit an accurate differential diagnosis. Useful objective indices exist, such as blood estrogen determinations and prolan assays, but the simplest and most applicable is the vaginal smear. Papanicolaou[2] first drew attention to the cyclical changes of the vaginal mucosa and later with Shorr[3] was able to show that the striking cytologic characteristic of the menopausal (castrate) smear were capable of transformation by adequate amounts of estrogen to the smear found in the follicular phase of the menstrual cycle. Thus a simple and exact method was made available for the demonstration of estrogen deficiency states and for the evaluation of the efficacy of administered estrogenic substances. We have used the vaginal smear to distinguish between menopausal syndrome of estrogen deficiency and pseudo-menopausal syndrome

From the University of Georgia School of Medicine, Augusta.

Read before the meeting of the Fifth District Medical Society, Atlanta, October 17, 1941.

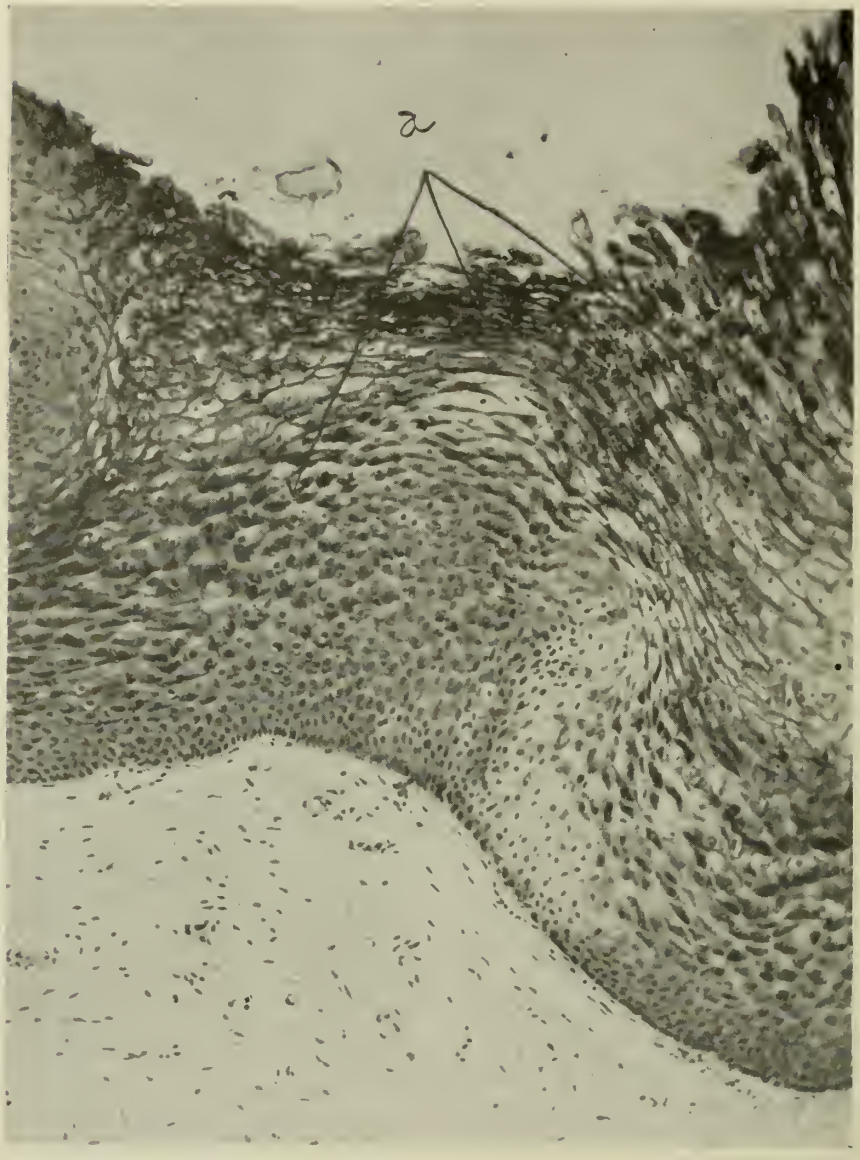

Fig. 1. Vaginal biopsy from a healthy woman stained with Best Carmine. The glycogen stains red in tissue section but photographs black. Note the thickness of the epithelial layer. Note "a" the cytoplasmic glycogen granules.

due to psychonuerosis with its associated autonomic imbalance.

The vaginal mucosa of the adult woman is lined by a stratified squamous epithelium, 15-20 cells in depth. The basal layer is composed of small well-stained cells with well defined comparatively large nuclei. The superficial layers are lined by large flattened vacuolated cells with or without small pyknotic nuclei. These cells are filled with glycogen. The middle cell layers of the vaginal mucosa are composed of moderately large round to ovoid cells with a central nucleus and with varying amounts of glycogen in the cytoplasm (Fig. 1). The thickness of the vaginal mucosa, the glycogen content of the superficial cells layers, the pH of the vaginal secretions are directly under hormonal control. When hyperestrogenism is present, as during pregnancy or in conditions which sometimes may be manifest by cystic glandular hyperplasia of the endometrium, there is frequently an associated increased thickness and succulence of the vaginal mucosa, an increased glycogen content of the superficial cell layers and a low pH (acid) of the vaginal secretions (Fig. 2). A vaginal smear taken at this stage will show only the superficial desquamative, large, flat cells with minute

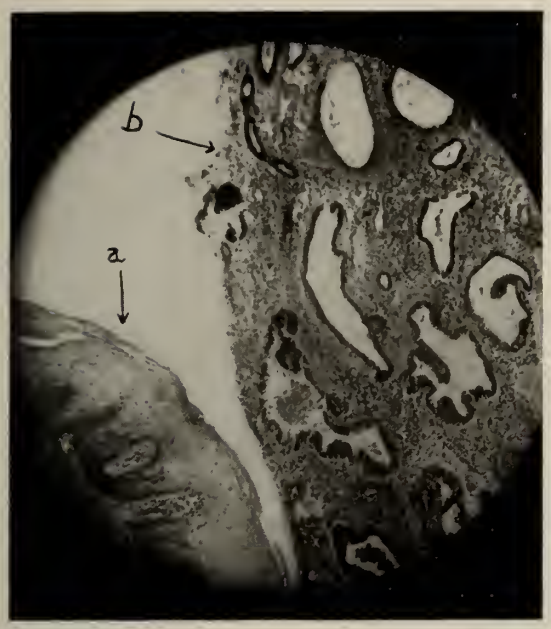

Fig. 2. Histologic section of the vaginal mucosa ("a") in a female with cystic glandular hyperplasia ("b").

Fig. 3. Typical positive vaginal smear (reaction 4) x 280 magnification. Reprinted from an article by the author—University Hospital Bulletin 2: 1, July, 1940.

pyknotic nuclei similar to that seen in Fig. 3. On the other hand, in certain types of hypoestrogenism, as in certain types of amenorrhea, hypopituitarism, senile vaginitis, in childhood, in the climacteric, there is a concomitant atrophy or immaturity of the vaginal mucosa. The vaginal mucosa consists of a thin layer of epithelial cells, which vary in depth from one to six cells. There is a failure of renewal of much of the "functionalis" cell layers, the glycogen content of the cells is minimal and the pH of the secretions is high (alkaline) (Fig. 4). A vaginal smear taken at this stage will show few if any of the superficial desquamative cells but many small round well stained basal cells with vesicular nuclei and many leukocytes and also large oval cells from the middle layer of the vaginal mucosa (Fig. 5).

Technic of Vaginal Smear, Staining Method and Interpretation

A wooden spatula, moistened by tap water, is inserted into the vagina and gently rubbed against the vaginal wall. The secretions thus obtained are transferred to a glass slide, dried and stained for 15 seconds with dilute aqueous fuchsin and washed. The slide is then ready for examination.

The interpretation of the vaginal smear offers a little difficulty at first but proficiency is soon acquired. It is important to rule out a chronic cervicitis, trichomonad or other vaginal infection before the smears are taken. Reading of the smears varies from the negative "castrate" or reaction 1, on to a positive "estrus" smear or reaction 4. The progressive vaginal smears in Fig. 6 are from a white female patient, aged 44, with a menopausal syndrome and senile vaginitis who received synthetic estrogen therapy and which may well be used to illustrate the grading of smears. On the day of onset of treatment the vaginal smear revealed few epithelial cells and many leukocytes. Among the epithelial cells there were very small round and irregularly shaped basal or castrate cells (reaction 1). On the second and third days the reaction may be interpreted as a 1 plus reaction. On the eighth day the castrate cells are fewer and cells from the middle layers of the vaginal mucosa are more abundant, leukocytes are numerous (reaction 1-2 plus). On the twelfth day an occasional castrate cell may be found among the desquamative cells. The latter vary in size and are not of constant uniformity and there are fewer leukocytes (reaction 2-3 plus). On the fifteenth day the smear reveals larger desquamative epithelial cells, not altogether uniform in size and shape, but with small pyknotic nuclei. No basal cells are present and only a very occasional leukocyte is to be seen (reaction 3.) The

Fig. 4. Vaginal biopsy taken from a patient with amenorrhea.

gradual and progressive improvement in the maturity of the smears in this case coincided with a decreasing vaginal pH from 7.5 to 5 and concomitant improvement in the vaginitis as well as the menopausal syndrome. Fig. 3 shows a characteristic full-blown estrus smear following estrogenic therapy in a menopausal patient who had a negative "castrate" smear.

There are occasional inconsistencies and variations in the vaginal smears from the human vagina. The following example illustrates the cyclical changes that may occasionally be found even after surgical castration. The vaginal smear in a white castrate female of 29 years of age varied from 1 to 2 plus. On occasion a 3 plus smear could be obtained in spite of no treatment. The smear soon relapsed back to a 1 or 2 plus reaction. It is thought that in some patients there may be a compensatory extraneous source of estrogen-like substances, probably adrenal in origin which may account for such findings. In general, as has been emphasized by Geist and Salmon[4], the vaginal smear is a simple and reliable procedure for determining the presence of normal ovarian activity or estrogen deficiency. By the use of this method patients manifesting a menopause-like syndrome but in whom normal estrus smears are repeatedly obtained are excluded from the truly menopausal group. Whenever the vaginal smear indicates an estrogen deficiency it is our custom to ad-

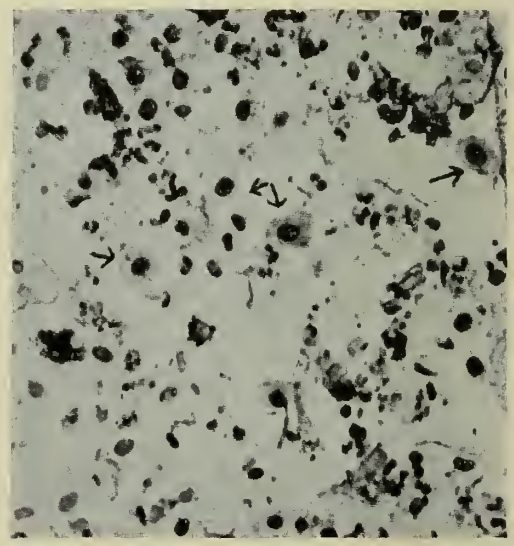

Fig. 5. Typical negative vaginal smear. Arrows point to castrate cells (reaction 1) x 280 magnification. (Reprinted from an article by the author—University Hospital Bulletin 2: 1, July 1, 1940.

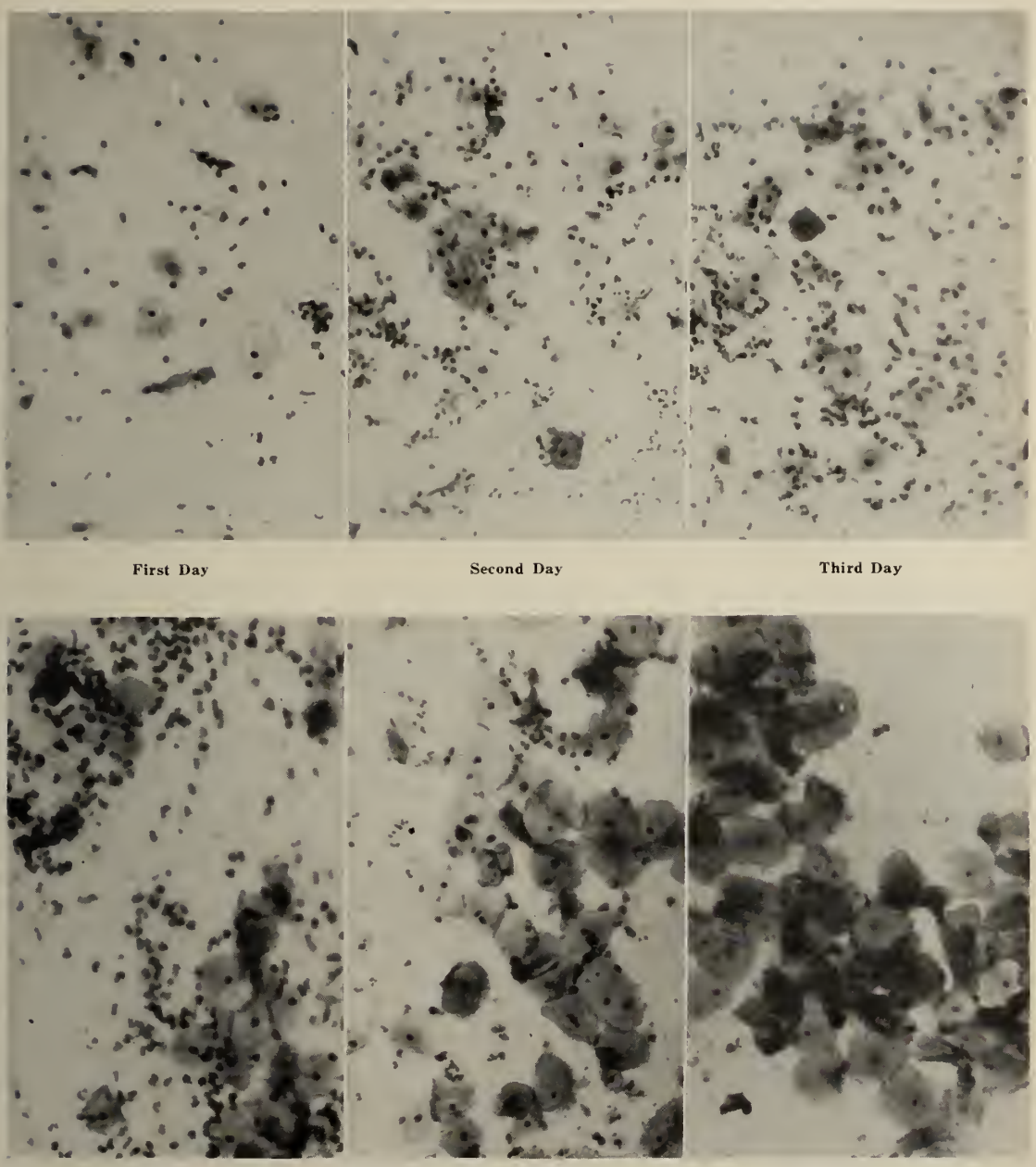

Fig. 6. W. F. 44—Menopausal syndrome, senile vaginitis, etc. Response to therapy paralleled improvement in vaginal smear. Twenty-three cubic centimeters of Stilbestrol in alcohol were required to transform the vaginal smear from a negative castrate to a 3 plus estrus in 15 days.

minister massive doses of estrogen until a 4 plus positive smear is obtained. The estrogens of choice because of their potency and prolonged effect are the compounds of estradiol (a-estradiol benzoate or a-estradiol dipropionate). Usually 5-15 mg. of estradiol dipropionate or 20,000 to 40,000 rat units of estradiol benzoate administered within a period of 7 to 14 days are sufficient to obtain an excellent estrus smear. Fig. 7 illustrates the change in vaginal smear from reaction 1 to reaction 3 in seven days with estrogen administration in a patient with a menopausal syndrome.

Using the vaginal smear method as an index, it is then fairly easy to ascertain the maintenance dose necessary to keep the vaginal mucosa at a constant level until all symptoms disappear. The unfavorable results occasionally encountered are usually due to insufficiency of dosage. The vaginal smear in these cases will serve as an in-

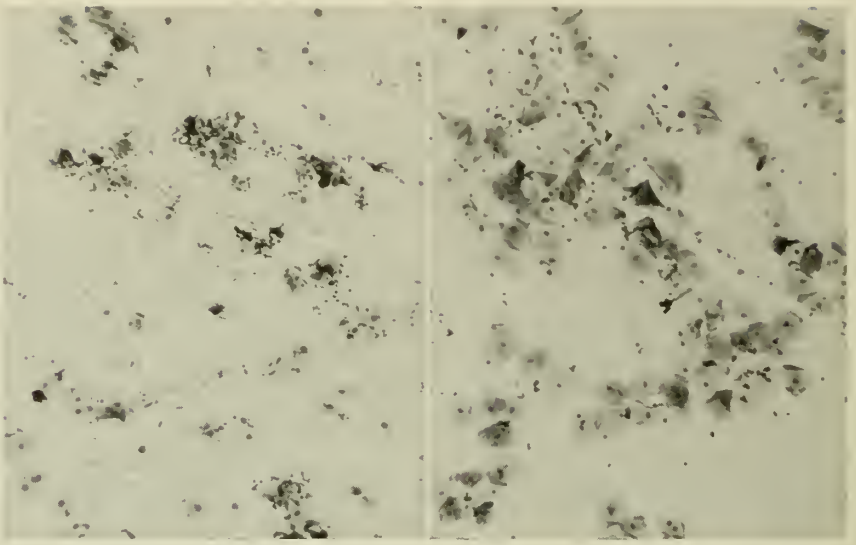

Fig. 7. Change of vaginal smear from reaction 1 to reaction 3 in seven days following estrogen administration in a patient with a menopausal syndrome.

dicator of the efficacy of administered estrogens (in cases of estrogen deficiency).

Case Report

A white female, aged 44, with a peculiar menopausal syndrome was sent to us for consultation and study. Her physician was at logger-heads to know what further to do for the patient for she failed to respond to 2,000 i.u. of estrone administered faithfully once and twice weekly for many months. Our examination disclosed that we were dealing with a true menopausal syndrome and not a severe psychoneurotic as had been suggested. There was a 2 plus vaginal smear, a vaginal pH of 6, and a positive urinary prolan test. Quantitative assays revealed more than 42 but less than 140 rat units of prolan in a 24 hr. specimen of urine. The amount of estrogens extracted from 130 cc. of urine failed to elicit a positive Allen-Doisy smear in both mature and immature castrate rats. It is evident, as the vaginal smear indicated, that this patient was insufficiently treated with estrogens and this was corroborated by the unnecessary time consuming and costly prolan and estrogen studies.

The group of patients with a menopause-like syndrome but in whom positive vaginal smears are obtained were treated in various ways. Many seemed to be benefited by estrogens, normal saline injections, phenobarbital and other sedatives, encouragement, assurance, an attentive ear to their ills or kindly advice as to their maladjusted family situations. On the other hand, many of the patients in this group failed to respond to whatsoever the form of therapy. In general it was found, however, that autonomic depressant drugs along with small doses of phenobarbital served to calm these patients, to relieve them of their so-called flushes, insomnia and nervousness. The expense of estrogenic therapy was thus avoided. Furthermore, estrogens, not infrequently, failed to alleviate their distressing complaints.

Case Report

A white female, 41 years of age, complained of hot flushes, insomnia, irritability, headaches, marked nervousness. General physical examination failed to reveal any significant findings. The vaginal pH and smears were normal. A subcutaneous injection of 1 cc. of normal saline was administered and small doses of phenobarbital were ordered. When she returned one week later, she claimed that she felt much better. This same therapy was repeated for another week with the same moderately good results. When Bellergal tablets, 1 t.i.d., were administered for the following two weeks, she then reported that she was "much better, no headaches, no hot flushes and sleeping well." When parenteral estrogens were substituted she did moderately well but not as well as on Bellergal therapy. She seemed, however, more intrigued by the "punctures" than by the banal ordeal of pill swallowing.

A menopausal syndrome or evidence of psychoneurosis should not overshadow the possibility of coincident organic disturbances. This point was vividly brought to mind in the study of a patient 61 years old, with hot flushes, severe pruritus vulvae, vaginitis and perigenital dermatitis. The vaginal smear revealed a negative castrate reaction and the vaginal pH was 6. Improvement in the vaginal smear, the pH and the vaginitis attended the administra-

The House of Delegates of the Association is made up of one hundred seventy-five representatives. They constitute the parliament of American medicine. Speaking for all of the profession of this country—as chosen delegates—they make and preserve the policies which guide us in our professional and civic relations. It is a thoroughly democratic body governed by strict but fairly administered parliamentary procedure. Its actions are not dictated or controlled by any group. The officers of the Association, including the headquarters organization—loosely spoken of by the uninformed and by those who would divide us as the hierarchy of medicine—are the servants of American Medicine who act except when they speak as individuals, in strict accord with the approved policies of the House of Delegates. These facts are not generally known or, if known, are too often discounted. Speaking as one who has been privileged to sit in fifteen sessions of the House, I write these convictions in the hope that my testimony may reassure those who have entertained doubt. I would even hope that those who speak loosely and without regard to truth might investigate anew. The sessions of the House are open to all. Through your delegates you have access to it for the presentation of such views as you believe are good for American Medicine. None is barred because he is called a radical; none favored because they are considered conservative. The House is an open forum where the problems of medicine are debated and where policies are made in accordance with the democratic principle of majority rule. There is only one yardstick which controls conduct with regard to a given question or a personal position. By it all matters are measured and all advocates judged, be they of the affluent or the forgotten stratas of life. I refer to the yardstick which weighs the effect of a given question upon the quality of medical care and its availability for all regardless of economic status. By this criterion alone the bottlenecks of debate are resolved. Moreover, it is the yardstick which preserves our principles of medical ethics and the ideals and idealism that has made us an altruistic profession. So long as these fundamentals are watched and the esprit de corps of medicine is accepted and practiced by its members mere court opinions cannot rob us of a professional status. The outward forms of medicine should change, will change, and are changing. But medicine's heart, if we are wise, will remain faithful to the Hippocratic Oath. Against this spirit the edicts of law can never prevail.

If space permitted I should like to review somewhat in detail the day-by-day proceedings of the House of Delegates. For the complete report you are referred to the June 14 and June 21 issues of *The Journal of the American Medical Association.* You will be inspired and rewarded, if time is taken, to carefully read the whole record. Particularly noteworthy are the addresses of the retiring president, Nathan B. Van Etten, and the incoming president, Frank H. Lahey. Doctor Van Etten appealed for unity based upon the observance of the loyalties of medicine, while Doctor Lahey, agreeing that medicine is probably more altruistic today than ever before, cautioned that realism dictated a policy of relegation of all differences, for the moment, to a secondary position lest division contribute not only to the loss of medical idealism but as well to the destruction of all that we cherish as a nation. Said Lahey: "Suits, privileges, personalities and personal opinions, in the light of the world conflict, should occupy minor positions. 'Osler said only to the small is the trivial great.' "

The report of Secretary Olin West—than whom there is not one more faithful or more revered—showed a membership as of May, 1941, of 119,000, the largest in history. Seven thousand, two hundred and sixty-nine were in attendance at the Cleveland session; 276 registered from the seven "deep South" states. From Georgia there were 42. Since there are 10,427 members in these Southern states the percentage of attendance was about 2½. From New York the attendance percentage was 4, from Massachusetts 3, from California 3, and from Pennsylvania 7. While comparatively speaking our "deep South" attendance was not bad we have to record with chagrin that the percentage of this membership group qualified as Fellows of the Association, and as Fellows and/or subscribers of *The Journal*, suffers from comparison with similar numerical groups in eastern and central states. For example, investigation discloses that the percentage thus qualified in a comparable numerical group in the East is 62, and in the central section 57. In the Southeast the figure is 44; in Georgia it is 40. Thus we find that we of the South suffer a deficit of some 18 per cent when compared to the East, and about 13 per cent compared to the central states. This differential may be accounted for in part on an economic basis but lack of follow-through interest is a more plausible and I fear more accurate explanation. Is it lack of Southern leadership? But there is a brighter spot in the picture. Whereas, speaking in terms of the country as a whole, there was loss in percentage of members qualified as Fellows and/or subscribers to *The Journal* in 25 per cent of states, the reverse is true in the Southeastern section. In the nine states comprising this territory there was gain over last year's figures in each state—an overall gain of Fellows and/or subscribers of 10 per cent. This is a pleasing trend. We want to see it continue because it reflects interest in and loyalty to the parent organization of the type necessary to successfully cope with movements, both lay and governmen-

tal, which tend to divide and then to destroy us. It must be our aim to overcome these deficiencies. All eligible members should be Fellows and all who can should attend the annual sessions.

Of more than passing interest was the decision to make next year's session at Atlantic City a Pan-American meeting. The physicians of Central and South America, of Mexico, Cuba, Puerto Rico and Canada will be invited. Another innovation was the decision of the House to authorize at the Atlantic City meeting an experimental session in the Section on Miscellaneous Topics for the general practitioner. If the experiment proves popular the House will further consider the request for the establishment of a section under this heading in the Scientific Assembly. Still another matter of general interest concerned the action of the House relative to the suit of the United States against the American Medical Association, et al. The Board of Trustees was instructed to appeal the verdict of guilty to the District Court of the United States of America of the District of Columbia. It is believed that reversible error was committed. Relief from a far-reaching and we believe gross miscarriage of justice is confidently expected.

The following Georgia physicians participated in the scientific and related activities of the Cleveland Session:

Council on Scientific Assembly: Dr. James E. Paullin, Chairman, Atlanta.

Authors of papers: Drs. Henry Poer and Ira A. Ferguson, Atlanta; Dr. Robert B. Greenblatt, Augusta; Dr. C. E. Irwin, Warm Springs.

To open discussions: Dr. Wm. Howard Hailey, Atlanta; Dr. James E. Paullin, Atlanta.

Participating in Scientific Exhibits: Drs. Henry Poer, Fred R. Rudder, T. Sterling Claiborne and W. R. Minnich, Atlanta.

Officers of Sections: Anesthesiology; Dr. T. J. Collier, Vice-Chairman, Atlanta.

In House of Delegates: Dr. Wm. H. Myers, Savannah; Dr. O. H. Weaver, Macon; Dr. C. W. Roberts, Atlanta.

At the concluding session of the House of Delegates the following officers were elected:

President: Fred W. Rankin, Lexington, Ky.

Vice-President: Chas. A. Dukes, Oakland, Calif.

Secretary: Olin West, Chicago, Ill.

Speaker: H. H. Shoulders, Nashville, Tenn.

Vice-Speaker: Roy W. Fouts, Omaha, Neb.

Board of Trustees, unexpired term: Austin A. Hayden, deceased, Ernest E. Irons, Chicago, Ill.

To succeed Thomas A. Cullen, not eligible for reelection, C. W. Roberts, Atlanta, Ga.

The meeting place for 1942, Atlantic City; for 1943, San Francisco; and for 1944, St. Louis.

In concluding this report I ask your indulgence for a personal word. It has been my pleasure as one of your delegates for several years to report the annual sessions of the House of Delegates in our JOURNAL. It is my hope that you have been both inspired and quickened—stimulated if you will—in resolve to play a more faithful role in the affairs of organized medicine both at home and in the nation. For my own part the effort to record the actions of the House together with the opportunity of representing such staunch defenders of the rights and privileges of the profession as compose our Association has given the urge to be a better doctor—the desire to qualify, if I could, as a medical statesman. With this report I terminate active participation as a member of the House of Delegates. I extend grateful thanks for the privilege of service. I shall continue in a new capacity to work for my own and for the National Association. It has been said that "eternal vigilance is the price of success." In the spirit of this maxim the ramparts of medicine's citadel must ever be guarded against the onslaughts of external foes and the subversive activities of appeasers within our own ranks. As physicians and benefactors of a glorious past purchased by our forbears at great price such vigilance would seem to be the minimum of our reasonable service. To do less would be to qualify as traitors to our sires.

HOUSE OF DELEGATES

SYNOPSIS OF THE PROCEEDINGS
NINETY-SECOND ANNUAL SESSION
MEDICAL ASSOCIATION OF GEORGIA
MAY 13-16, 1941

ARRANGEMENTS: The chairman of the Committee announced the list of entertainments, the dates and the places with a cordial and urgent invitation for all to attend.

PRESIDENT: The President reported that he had visited every district society in the State, had talked to every district Auxiliary, had attended other association and society meetings, including the Georgia State Medical Association (colored), Georgia Public Health Association, Association of Industrial Surgeons, Southeastern Surgical Congress; had spoken at many civic club meetings, had attended many committee meetings, and traveled 17,000 miles. He complimented the work and leadership of the Secretary-Treasurer on having more funds on hand than ever before and suggested that some appropriation be made to purchase projectors and equipment, with films, to be used for educational purposes, and that a benevolent fund be established. The President complimented the committeemen for their untiring and excellent work and, to prevent duplication on such reports, did not make further comment. Appreciation for the President's untiring efforts were expressed by the House of Delegates with the statement that the effects of his work will redound to the benefit of the Association now and in future years.

PRESIDENT-ELECT: Reported that he had tried to familiarize himself with his duties and with the needs of the Association by attending county and district society meetings in all sections of the State, by serving on committees, by visits and conferences on graduate seminars in this and other states and by observing other

regional, special and national conventions. "Georgia doctors are well trained, are efficient and are devoted to the best interests of their patients and the welfare of their communities. They are giving one-third of their time to charity patients, one-third to those able to pay part of the usual fees, and one-third to those able to pay all fees for medical care." He commended the Georgia Department of Public Health for being efficient and tireless and said that in no other State Department is there such constant service. Recommended distribution of doctors to include rural areas, the building of hospitals to attract and develop the best medical care, requested every member at the Macon session to make an effort to enlist every eligible physician as a member of the Association, that professional standards be maintained and to promote fellowship and unity; and that post-graduate seminars should be continued and enlarged. The House of Delegates concurred in the President-Elect's recommendations and complimented him for his work.

Parliamentarian: Reported that no controversies had arisen, that no amendments had been proposed for the Constitution and By-Laws, and that no accusations had been fostered to precipitate acrimonious debates in reference to our code of ethics. The House of Delegates adopted a motion (a recommendation of the Parliamentarian) to recommend to physicians in small towns that they engage in reciprocity practice so that one may go away and take post-graduate study without being deprived of his practice, also that similar arrangements be made for physicians who engage in military service.

Secretary-Treasurer: The House of Delegates adopted the report that the official membership was the highest ever attained by the Association and that the financial condition surpassed anything accomplished in former years. The following suggestions made by the Secretary-Treasurer were adopted: that the Association establish a $5,000 benevolent fund, that the Association purchase ten movie projector machines with such necessary equipment as might be needed, one to be used by each Councilor in the State; and to establish a film library to supply films for each Councilor to educate the people in public health and to increase interest in public health in all Congressional Districts of the State, that visual education is more effective than didactic lectures; that the titles to the machines and all equipment be and remain invested in the Medical Association of Georgia; that each Councilor make a report on the use of the machines and films at each annual session; and that in so far as the treasury permits additional films be purchased annually to maintain a film library in cooperation with the State Board of Health. The House of Delegates stated that the report of the Secretary-Treasurer reflects his remarkable leadership.

Public Relations Bureau: The House of Delegates adopted the report of the Secretary-Treasurer that the distribution of health literature be assigned to the State Board of Health and the State Board of Education; that after the Association purchased 10 movie sound-on-film projectors, 10 loud speakers, 10 screens with accessories, and health education films, that the Councilor of each district, the officers of each district medical society and the officers of the Woman's Auxiliary sponsor the showing of health films.

Charter: Adopted a motion to have the charter of the Medical Association of Georgia renewed for a period of thirty-five years from June 10, 1941 (the date of the expiration of the present charter).

Scientific Exhibit: Adopted the report of the Committee, complimented the individual displays, and expressed its appreciation and thanks for such excellent service.

Post-Graduate Medical Education: Adopted the report of the Committee that while the post-graduate seminars which had been held may not have been as successful as they should have been, lack of interest may be accounted for because the members were not familiar with the arrangements and that it is a pioneering undertaking. Adopted a recommendation by the Committee that the Association set aside a revolving fund of $1,000 for other post-graduate seminars and suggested that the Committee continue its efforts to obtain additional funds from the Commonwealth Fund.

Aid for Needy Physicians: Adopted the recommendations of the President and the Secretary-Treasurer, and the resolutions by the Fulton County and Richmond County medical societies dealing with the same problem, provided the Council approved the plan; and recommended that if and when the Council approved the plan that it be under the direction and control of the Council.

Woman's Auxiliary: Adopted a report to extend thanks and congratulations for the work of the Auxiliary, that its work had been well done and is indispensable. "The Association extends to them our unabridged cooperation and support in their activities."

Georgia Pathological Society: Adopted a resolution by the Fulton County Medical Society to have a committee of six members or more appointed to study and confer with the State Board of Health in an effort to limit the work in that branch of medicine known as clinical pathology to the indigent and such other people as may be unable to pay for such service. That since grants-in-aid funds have been supplied from outside sources, and that such clinical pathologic work has been done promiscuously for people without reference to their ability to pay, it has become discouraging to members of the profession.

Hospitals: Adopted the report of the Committee. Summary of report follows: "Present hospital facilities in Georgia are not being sufficiently utilized and there is a large number of hospital beds empty each day. There is an abundance of need for the beds, and ways and means should be found to use them. This first requires acceptance of responsibility for the care of indigent patients by county authorities, since they have necessary authority to provide such. An insufficient number of large hospitals (100 beds or over) is available in Georgia. These are needed to serve as diagnostic centers throughout the State. There are too many small

hospitals (25 beds or less) in Georgia. Perhaps no hospital at all is better than a poorly equipped and inadequately staffed clinic. Facilities in existing hospitals should be improved. This applies specifically to diagnostic equipment, nursing staff, and the care of maternal patients. Facilities for Negro patients and Negro physicians are needed. All hospitals in Georgia should be registered with the American Medical Association. All hospitals with more than 25 beds should have the approval of the American College of Surgeons since this is based on low standards."

PEDIATRICS — ADVISORY STATE BOARD OF HEALTH: Adopted the report of the Committee that its chief work was in editing pamphlets for distribution in the State. With the recommendations of the Committee, and in close cooperation of the State Department of Public Health, there have been 286 clinics established for the underprivileged children and mothers. They have been given medical advice as to diet, hygiene and immunization, such as smallpox, diptheria, etc. Local physicians who were not associated with the Department of Public Health were used and an honorarium of $5 was paid each for a few hours' work. People who were able to pay for medical service were not admitted to the clinics. Incubators have been built and will be supplied to each county of the State. Georgia has led all states in reducing maternal mortality and infant deaths. One hundred and fifty physicians have been transferred to military service; 45 counties have 4 doctors each or less; in 21 counties 75 per cent of all the children born are attended by midwives. The Baby Book distributed to all babies born should be brought up-to-date; blood should be drawn from children's fingers to make a Kahn or Wassermann test. A registered nurse is being trained at Harvard to teach midwives. It was suggested that the Committee be continued and that Dr. W. L. Funkhouser be contacted before appointments were made.

NATIONAL YOUTH ADMINISTRATION: Adopted the entire report. The Administration was launched to educate the youth of the nation, to improve the health of the workers and strengthen national defense. The N. Y. A. proposed close cooperation with the physicians. The Committee met with officials to arrange its health program: physical appraisal by examination of every youth assigned to a job; correction of health defects through community resources in addition to dental and medical facilities provided from other sources; improved technical advice and assistance on health, nutrition, sanitation, physical development and recreation. Mrs. Frances L. Kennedy is full-time Supervisor for Georgia; Dr. Edgar D. Shanks is Health Consultant. Examinations are made by physicians in various counties and a great deal has been accomplished since Jan. 1, 1941. The health program is worthy of the assistance and cooperation of the medical profession. A synopsis of the results follows: Using the approved forms for examinations are: 91 white physicians, 11 Negro physicians, 5 white dentists and 2 Negro dentists. The State Department of Public Health has provided laboratory tests, immunizations and x-ray service in counties with public health facilities; also sanitary inspection and advice. Approximately 2,000 examinations have been completed. There are 8 white and 2 colored field nurses working in the State. Many youths with communicable diseases have been referred to public health departments for treatment. Interest and cooperation of youths from 16 to 24 years of age make the health program possible.

TUBERCULOSIS: Adopted the entire report of the Committee. It was reported that the entire personnel of the Committee worked enthusiastically for the control of tuberculosis. The Committee encouraged the reading of papers before the Association and district and county medical societies. A report of the excellent work by the personnel of the State Tuberculosis Sanatorium at Alto has been conveyed to Governor Talmadge and apparently was kindly received. Chairman Dr. Champ Holmes, complimented other members of the Committee and quoted enthusiastic reports from them. Dr. Schenck with the State Department of Health suggested that clinic service be established throughout the State, that a method be devised and cooperation secured for the integration of the State Tuberculosis Sanatorium in extending treatment facilities; to organize local agencies to provide for the needy patients who cannot be housed in institutions; promote State-wide pneumothorax refills; install x-ray apparatus in central offices for emergencies, and offer special consultation service. Special reports were made by Dr. C. D. Whelchel for Hall County; Dr. R. C. McGahee for Richmond County; Dr. C. M. Sharp for Habersham County; Dr. Ernest F. Wahl for Thomas County, and Dr. R. V. Martin for Chatham County. It was suggested that the Committee report at the next annual session on a plan whereby the care of the incurables may be treated and thus prevent that constant source of spreading the disease.

ORTHOPEDICS—ADVISORY TO STATE DEPARTMENT OF PUBLIC HEALTH: Adopted the report of the Committee and expressed approval of what had been done, that several meetings were held with the Director of the State Department of Public Welfare; that several medical consultants resigned followed by appointment of others and that Dr. J. H. Kite is now acting as Medical Consultant. Officers of the Children's Bureau in Washington, in person or by letter, have conveyed the idea that the present set-up was not satisfactory and that Federal funds might be withheld July 1 if changes were not made. Special recommendations of this Committee are: that the Director of the Crippled Children's Bureau should be a physician with training in orthopedic surgery or pediatrics; that clinics should be held regularly in different sections of the State; that the county health nurses be permitted to care for crippled children after being discharged from hospitals; that a follow-up and more favorable end results should be obtained; that the Committee wishes to cooperate with the Crippled Children's Bureau and that it should be consulted before changes in the personnel are made; that an orthopedic surgeon should be given a hearing before being discharged; and that the Crippled Chil-

dren's Bureau is a health organization and should be under the State Department of Public Health.

Awards: Adopted the report of the Committee and announced that Dr. Robert B. Greenblatt, of Augusta, was the winner of the Crawford W. Long Memorial Prize and that no papers were offered in a contest for the Ware County Cup or the Hardman Loving Cup.

Delegates to the American Medical Association: Adopted the report of our delegates. A sketch of the proceedings of the New York Session held in New York City, June 10-14, 1940, was published on pages 375-376 and 378 of the July, 1940, issue of The Journal of the Medical Association of Georgia. Members of the A.M.A., on April 1, 1940, were 116,266; on April 1, 1941, were 118,441.

Public Policy and Legislation: Adopted the Committee report as read. No effort was made to rehearse and analyze all bills introduced in the General Assembly of Georgia and the Congress of the United States. The National Defense Program, national and state elections cast shadows over our efforts; many of our doctors have begun service in the Army, the Navy or the Public Health Service; the profession has been prosecuted by the same Government it has vigorously assisted in its defense program; the National Physicians' Committee for the Extension of Medical Care obtained statements from both candidates of our major political parties that they did not expect to promote socialized medicine. There is a bill pending in the United States Senate to provide more hospitals, especially in rural areas. Chiropractors and osteopaths sponsored bills in our State Legislature to give them almost the same rights and privileges as that bestowed upon the medical doctor, but fortunately, after united and resolute resistance, they were defeated, except that the osteopaths may use only such drugs as are named in the Harrison Narcotic Act and those only to alleviate pain. Two bills have been passed, or amended, to permit group hospitalization and a person holding such insurance may now select any hospital which has been approved for such insurance; one bill amended the Constitution of the State of Georgia to permit counties and/or municipalities to contract with counties and municipal corporations or with public agencies, public corporations or authorities and provide hospital facilities. County commissioners of the various counties of the State are permitted to levy a tax to provide medical care and hospitalization for the indigent of their respective counties. "At no time in the past has the great opportunity of the medical profession been so apparent as now. We must serve and serve well regardless of reverses," said the Committee.

Medical Defense: Adopted the report of the Committee. Suits were filed and tried, or are now pending, against fifteen members for alleged malpractice. Most of the suits were filed against a single member; one suit was filed against two and one suit filed against three. Our attorneys have rendered a great service by advising others against whom suits might have been filed. (If you are threatened with a suit for alleged malpractice, do not discuss the claim with anyone and do not employ a lawyer; but write all details to the Secretary-Treasurer and wait for advice).

Cancer Commission: Adopted the report as read; that the Commission has worked to keep abreast of all new and reliable methods for diagnosis and treatment of cancer; intensive educational programs have been conducted and were disappointing; that while the physicians appear to take more interest, the people are inactive and seem lulled. The Commission will increase its activities. Georgia's Cancer Control law seems to be popular with other state associations and health organizations. During the calendar year 1,906 applications were approved, 165 were not reported back, 566 were found not to have malignant lesions, 1,340 had cancer. It cost $17.13 to diagnose non-malignant cases, and $41.94 to diagnose and treat malignant cases. "The Free Cancer Hospital of our Lady of Perpetual Help of the Catholic Church, located at 760 Washington Street, Atlanta, is conducting a work that no other charity in the State is doing." No charges are made and no funds solicited but they accept large or small donations. The Commission recommends this institution to the favorable consideration of any philanthropic person. No increase in the appropriation was made at the last session of the General Assembly of Georgia. Pamphlets supplied by the National Physicians' Committee entitled "A Priceless Heritage" were distributed with other literature and a copy placed on the desk of every member of the General Assembly of Georgia. The members of the Legislature seemed to be interested in our work. Letters and leaflets were recently mailed to all doctors in the State, except those in Fulton County. Sound moving picture films have been shown to about 2,000 people. The machine and operator were supplied by the Secretary-Treasurer. The Georgia Division of the Women's Field Army of the American Society for the Control of Cancer has been successful in an educational drive just closed. The Commission recommends the following: That the Cancer Commission be given sufficient funds to enable it to send literature to every doctor in Georgia at least three times during the fiscal year; that doctors be requested to emphasize two of the most important early diagnostic points, the insignificant appearance of early lesions and the absence of pain, except lesions in bones and joints, and to point out that this lack of symptoms is a most serious sign. These facts should be drilled into the minds of the public at every conceivable opportunity. That a paper on cancer control and the value of State-aid clinic conferences be presented at as many county and district medical meetings as is possible. The State-aid clinics should be encouraged as educational centers and in treating the indigent cancer sufferers. The Commission asked for an appropriation of $150, which is the amount appropriated for each of several years, after receiving the approval of the Council, which was approved by the House of Delegates.

Medical History of Georgia — Sub-Committee: Adopted the report as read: that through the efforts of Dr. Edgar D. Shanks, Secretary-Treasurer of the Association and Editor of The Journal, a large amount

of valuable material has been collected in reference to the medical history of Bibb, Chatham, Fulton and Richmond counties. The Sub-Committee wants the medical history of every county in the State. It has histories of the following counties: Bartow, Ben Hill, Berrien, Brooks, Butts, Carroll, Clayton, Colquitt, Cook, Coweta, Crisp, Decatur, Dougherty, Douglas, Elbert, Emanuel, Forsyth, Gordon, Grady, Habersham, Hall, Houston, Irwin, Jackson, Jefferson, Laurens, Macon, Madison, Morgan, Muscogee, Polk, Randolph, Screven, Spalding, Stewart, Sumter, Taylor, Telfair, Thomas, Tift, Toombs, Troup, Walker, Washington, Whitfield and Wilkes. Secretaries of all other county medical societies have been asked to supply material for their respective counties. Biographies of prominent physicians will be included. The Committee wants all material in reference to the histories of the Medical Association of Georgia, medical schools, State Department of Public Health, medicine in Georgia during the War Between the States, Spanish-American War, first World War and hospitals. The Committee hopes to complete the history and to announce at the next annual session that it is ready to publish. Every doctor in the State is urged to send in any material which may be suitable for publication in the history.

WOMAN'S AUXILIARY—ADVISORY: Adopted the report of the chairman, that the officers of the Auxiliary made good suggestions in reference to nutrition for the people of the State and urged the education of the public as to the benefits to be derived from a balanced diet, and that newspapers and other means be employed to convey the information to the laity.

SOCIAL SECURITY ACT AND OTHER ADVISORY COMMITTEES TO VARIOUS DEPARTMENTS OF THE STATE GOVERNMENT: Motion carried to authorize the President to consolidate such committees or arrange in some way so their work may be more effective and that they should advise or make suggestions within the limit of their authority.

STATE BOARD OF HEALTH—ADVISORY: Adopted the report that the Director of the State Department of Public Health has conferred with the Committee on numbers of activities proposed and sponsored by the Department. All relations have been cordial and helpful. The Committee commends Dr. T. F. Abercrombie and his efficient staff for continued progress in public health work in Georgia.

ABNER WELLBORN CALHOUN LECTURESHIP: Adopted the report of the Committee on its selection of a guest speaker. Expenditures for the last fiscal year were $94.50 for a guest speaker at the Savannah Session in 1940. Assets of the Lectureship fund are: cash $896.99; 9 shares of Georgia Power Company stock, cost $495.00; 10 shares of Southwestern Railroad stock, cost $1,332.50.

MEDICAL ECONOMICS—SUB-COMMITTEE: The Committee made no effort to function since the nation was confronted with a national emergency and the Committee on Medical Preparedness was pressed with its work to obtain such information as was requested on questionnaires. It would have been almost impossible to make any evaluation in reference to economics, stated the Committee.

MEDICAL PREPAREDNESS: Adopted the recommendation of the Reference Committee, that the Committee has been active and has done important and valuable work and that its efforts be continued.

SYPHILIS: Adopted the report of the Committee and commended the work of the State Department of Public Health in establishing 90 clinics in 46 counties in 1939, and increased the number of clinics in 1940 to 167 in 86 counties. During 1940 the Department paid to private practicing physicians the sum of $31,190.00 and supplied drugs to the amount of $48,549.88 which were distributed to doctors and clinics. The State Department of Public Health, in cooperation with the University of Georgia School of Medicine, initiated a number of two-weeks' post-graduate courses in venereal diseases and paid each doctor on completion of the course an honorarium of $50 for expenses. The Department has been divided into six regions, in each there is a regional medical director, consultant nurse and two sanitary engineers and during 1940 a venereal disease consultant nurse was assigned to each region to supervise the clinics and to carry out as much case finding and follow-up work as possible; 40,837 cases of syphilis were admitted for treatment. The Committee recommends that the Department make a confidential survey through the physicians of the State to ascertain the number of cases of syphilis in the State; that this information is pertinent and should be obtained.

STUDY OF MATERNAL MORTALITY AND INFANT DEATHS: Adopted the report of the Committee, that the report is as nearly complete as possible under the circumstances and includes many facts which should be known by the physicians and laity, that there has been a reduction in the white death rate and an increase in the colored; stillbirths increased in the white and decreased in the colored, which may be accounted for by the work done at prenatal clinics. Of the questionnaires mailed 86 per cent were returned. That operative and induction of labor should be cut to a minimum and surgical cleanliness increased to a maximum. Prenatal care in Georgia is inadequate, probably because the people do not realize its value. That 67 per cent of the white births and 87 per cent of the colored births occur in the homes. The number of midwives is decreasing. Maternal mortality is an educational problem. It was recommended that the details of this study be broken into topics and given wide distribution in Georgia among the physicians who are not members of the Association. The Committee was commended for its excellent work.

UNITED STATES PHARMACOPEIA CONVENTION: Two members of the Committee attended all meetings of the Convention, including the preconvention meeting held in Washington, D. C., May 13, 1940. This meeting dealt with general problems and was helpful in forming opinions and drafting plans for the convention to follow on May 14-15, 1940. Adopted the report of the Committee that physicians should use the pharmacopeia freely. In many ways the procedure of the convention

was obsolete and some delegates were unwieldy; the Committee introduced a motion which carried to meet again in two years to make such changes in the Constitution as might be necessary on account of such rapid progress in the development and use of vitamins and chemotherapy.

More physicians were present at the election of officers and more were chosen for official duties. Dr. Morris Fishbein, of Chicago, Editor of The Journal of the American Medical Association, was elected to the Board of Trustees to give the A.M.A. representation. Your delegates urge all members of the Association to better acquaint themselves with the U. S. Pharmacopeia, that delegates of this Association attend all future conventions for revision of the United States Pharmacopeia. Approval of the report was voted by the House of Delegates.

Industrial Health: The Committee reported that a meeting had been held in Atlanta, April 18, 1941, and that Dr. C. M. Peterson, of Chicago, Secretary of the Council on Industrial Health of the American Medical Association, was guest speaker. A majority of the members of the Committee were present, also some of the officers of the Medical Association of Georgia and the Fulton County Medical Society. Adopted the recommendations of the Committee as follows: "That an attempt be made to have more teaching of industrial medicine in the medical schools; promote post-graduate teaching; publish more articles dealing with industrial medicine, especially in the annual issue of The Journal of the A.M.A. devoted to industrial medicine; that committees be appointed in all county medical societies to promote the recommendations of the Committee; and that the State Board of Health be commended for the formation of the Bureau of Industrial Hygiene.

Appendicitis: The Committee reported that they were appointed a year ago with an example of what the State of Pennsylvania had done to reduce mortality in appendicitis and with the admonition, "Do thou likewise," but no funds were appropriated, not even for postage. One member from each Congressional District composed the personnel of the Committee and subcommittees were formed in each county medical society; talks were made in schools, before college groups, civic organizations, the P.-T. A., Women's Clubs; radio addresses were given and newspaper articles written. A gift of 100,000 bulletins, "Appendicitis" was made by the Metropolitan Life Insurance Company; 1,500 bulletins were mailed to druggists and 200,000 sticker labels were distributed among the druggists to caution people against taking purgatives in the presence of abdominal pain. The Retail Druggists' Association has cooperated wholeheartedly; the Woman's Auxiliary has rendered valuable service; the State Department of Public Health has given wonderful help in making slides, posters and phonograph records. The Committee appealed to the Council for an appropriation of $150 to $200 to pay postage and for equipment. Recommended that picture machines and films be purchased to use in each of the Congressional districts, respectively. The House of Delegates approved the work of the Committee.

Medical Economics: Adopted the report of the Committee. The chairman submitted copies of letters written to the deans of the two medical schools in the State with the request that the letters be submitted to the medical students at both institutions and that the presidents of the senior classes write the chairman the views of the respective classes in reference to part of the students locating in rural communities to practice for two years or longer. Abstracts of their replies follow:

From Emory University School of Medicine: Two points were involved in the letter, that it should be elective with the students and that a doctor placed in such a location should be allowed to remain after two years or move to another location; the plan met with the general approval of the Emory student body.

From the University of Georgia School of Medicine: That to require part of the graduates to practice in rural communities for two years would be unfair to them as compared with others permitted to select locations to practice, that part of the students should not be penalized for graduating at a State institution. But in the event the State or other political division proposed to subsidize such practice or other help that would appear reasonable and would not work a hardship on students so located might be justly considered.

It was pointed out that the reason rural communities do not have more physicians is that the physician cannot collect sufficient funds to live satisfactorily. That well trained physicians will locate in such communities if the Government will subsidize the physicians and supply suitable quarters and equipment; however, this might be getting too close to socialized medicine. Students are sensitive to the needs of physicians in rural areas but particular graduates should not be selected to practice there, especially unless an agreement or contract was made prior to his entrance into a medical school. Well equipped hospitals and improved roads will help to solve the problem to some extent. Sufficient interest in rural practice has been shown to justify some action by the Association, and the Committee suggests that volunteer members of the Association sponsor and contribute to the support of young physicians so located. Any graduate of our medical schools or member of the Association would be eligible. Encourage the people to give him their utmost support. Some guarantors might have to make up a small deficit but the building of small hospitals, and practitioners being appointed to the staffs of nearby hospitals, would help to satisfy the Government. That organized medicine must have assistance from within or from without. The amount paid out annually for what may be considered the distribution of medical care follows: medicine, $625,000,000, of this amount only $140,000,000 is paid on doctors' prescriptions; other distributing agents $40,000,000; physicians $25,000,000; hospitals and dispensaries $25,000.000—total $715,000,000. Of this sum the doctors' fees and the medicine bought on their prescriptions amounted to 23 per cent of the grand total.

It was suggested, and adopted, that the Councilors from the ten districts work with the county commissioners of their respective districts and make an effort to solve this problem.

RESOLUTION: Adopted — Be It Resolved, That this Association send messages to the general offices of the following organizations to assure them of our heartiest support and loyalty: Surgeons General of the U. S. Army; the U. S. Navy; the U. S. Public Health Service; the Fourth Corps Area, and the Director of the Selective Service in Georgia.

WEAVER, DR. J. CALVIN: Motion was carried to give him a rising vote of thanks for his non-scientific but entertaining and instructive exhibit.

MEETING PLACE—1942: Motion was carried to refer the invitations to meet at the Lookout Mountain Hotel, near Chattanooga, and that of the Bon Air Hotel, Augusta, to the Executive Committee to select a meeting place and set dates for the session within thirty days. The Ninety-Third Annual Session of the Association will be held at the Bon Air Hotel, Augusta, April 28, 29, 30 and May 1, 1942.

COKER, DR. GRADY N.: Made a report on the smooth operating and time-saving procedure of the House of Delegates of the South Carolina Medical Association, also that the State Board of Health of South Carolina had spent $9,940,000 of public funds in the last seven years which is about twice the amount spent by the Board in Georgia.

SCIENTIFIC EXHIBIT: Motion was carried to separate scientific exhibits of individual practitioners from those of clinics as it is unfair for an individual to have to compete for a prize against some institution which has ample funds to put on a more expensive display.

COUNCIL: Motion was carried to adopt the report of the Council in reference to the expenditure of funds for the next fiscal year, among that a benevolent fund of $5,000; appropriated $4,000 to $5,000 to buy picture machines, screens and accessory equipment, also films to be shown for health education; for the usual budget of the Association and an increase of $50 per month in the salary of the Secretary-Treasurer; and approved the renewal of the charter of the Association for thirty-five years.

RESOLUTION: Motion was carried to thank the Macon physicians and their wives for the cordial welcome and generous cooperation during the session; also the newspapers, mayor, manager of the Auditorium, hotels and Jimmy Shanks, movie operator.

Resolved, That the 1941 House of Delegates set the amount of dues at $7 per capita for the year 1942.

MEMBERS REGISTERED AT THE NINETY-SECOND ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA, MACON—MAY 13-16, 1941.

A

Abercrombie, T. F., Atlanta.
Adams, B. C., Thomaston.
Akerman, Joseph, Augusta.
Alden, Herbert, Atlanta.
Aldrich, F. N., Macon.
Alexander, Geo. H., Forsyth.
Allen, Eustace A., Atlanta.
Allen, H. D., Milledgeville.
Allen, Myron B., Hoschton.
Allison, Gordon G., Atlanta.
Amis, Frank J., Hogansville.
Anderson, Carl L., Macon.
Anderson, J. C., Macon.
Anderson, Robert, Augusta.
Anderson, Sam A., Milledgeville.
Anderson, W. W., Atlanta.
Andrews, Chas. R., Jr., Canton.
Andrews, Justin, Decatur.
Applewhite, J. D., Macon.
Arnold, J. T., Parrott.
Arnold, W. A., Atlanta.
Arp, C. Raymond, Atlanta.
Arrendale, J. J., Augusta.
Atkinson, Harold C., Macon.
Aven, C. C., Atlanta.
Ayers, A. J., Atlanta.
Ayers, C. L., Toccoa.
Askew, P. H., Jr., Nashville.

B

Babers, Henry J., Jr., Ft. McPherson.
Bailey, M. K., Atlanta.
Bailey, Thos. E., Augusta.
Baird, J. Mason, Atlanta.
Ballenger, E. G., Atlanta.
Bancker, E. A., Atlanta.
Banister, H. G., Ila.
Barfield, J. A., Macon.
Barrett, Clara B., Atlanta.
Barrow, Harry L., Macon.
Barton, W. L., Macon.
Bashinski, Benj., Macon.
Bateman, Needham B., Atlanta.
Battle, Lee H., Jr., Rome.
Baxley, W. W., Macon
Baughn, E. B., Colquitt.
Baxter, J H., Ashburn.
Baylis, J. E., Atlanta.
Bazemore, Wallace L., Macon.
Beard, J. S., Edison.
Beasley, B. T., Atlanta.
Bedingfield, W. H., Augusta.
Bedingfield, W. O., Savannah.
Beeler, J. Moss, Atlanta.
Belcher, F. S., Monticello.
Bell, Rudolph, Thomasville.
Bellhouse, Helen, Thomasville.
Benson, Marion T., Jr., Atlanta.
Bernstein, M. M., Athens.
Billinghurst, G. A., Macon.
Binion, Richard, Milledgeville.
Bishop, L. H., Unadilla.
Bivings, Lee, Atlanta.
Blackford, L. Minor, Atlanta.
Blalock, Frank A., Atlanta.
Blalock, J. C., Atlanta.
Bolgla, Julius, Augusta.
Boling, Edgar, Atlanta.
Boland, Frank K., Atlanta.
Bonner, W. H., Lavonia.
Bostick, W. A., Milledgeville.
Boswell, W. C., Macon.
Boyette, L. S., Ellaville.
Boynton, Chas. E., Atlanta.
Bowdoin, C. D., Atlanta.
Bowdoin, Joe P., Atlanta.
Bowen, Albert, Atlanta.
Bradley, J. D., Milledgeville.
Brandon, R. V., McDonough.
Branch, J. R. B., Macon.
Brannen, Cecil, Moultrie.
Brawner, Jas. N., Atlanta.
Bridges, Glenn J., Atlanta.
Bridges, R. R., Leary.
Broaddrick, G. L., Dalton.
Brown, F. Bert, Savannah.
Brown, Stephen T., Atlanta.

Bryant, C. H., Comer.
Bryant, V. L., Barton.
Bullard, T. P., Palmetto.
Bunce, Allen H., Atlanta.
Burford, Robert S., Brunswick.
Burke, B. Russell, Atlanta.
Burleigh, Bruce D., Augusta.
Burpee, C. M., Augusta.
Busch, John F., Atlanta.
Bush, A. R., Hawkinsville.
Busey, T. J., Fayetteville.
Byne, J. M., Jr., Waynesboro.
Byne, J. M., Waynesboro.
Byrd, Edwin S., Atlanta.
Byrd, T. Luther, Atlanta.

C

Cabaniss, W. H., Athens.
Cagle, W. D., Griffin.
Callaway, Enoch, LaGrange.
Camp, R. T., Fairburn.
Campbell, J. L., Atlanta.
Carter, D. M., Madison.
Carter, R. L., Thomaston.
Cason, W. M., Sandersville.
Cathcart, Don, Atlanta.
Chaney, Ralph H., Augusta.
Charlton, Thos. J., Savannah.
Cheek, O. H., Dublin.
Cheves, L. C., Jr., Montezuma.
Chesnutt, T. H., Moultrie.
Childs, J. R., Atlanta.
Chrisman, W. W., Macon.
Churchill, C. W., Thomson.
Claiborne, T. S., Atlanta.
Clark, Jas. J., Atlanta.
Clark, T. H., Douglas.
Claxton, E. B., Dublin.
Clay, J. Emory, Macon.
Cleckley, Hervey, Augusta.
Clifton, Ben H., Atlanta.
Cofer, Olin S., Atlanta.
Coffee, W. P., Fitzgerald.
Coker, Grady N., Canton.
Coleman, Reese, Atlanta.
Coleman, Warren A., Eastman.
Collier, Thomas W., Brunswick.
Collins, Braswell E., Waycross.
Corn, Ernest, Macon.
Corry, J. A., Barnesville.
Cox, C. G., Milledgeville.
Cranston, W. J., Augusta.
Crawford, H. C., Atlanta.
Crawford, R. L., Locust Grove.
Crowe, W. R., Atlanta.

D

Dancy, Wm. R., Savannah.
Darby, V. Lee, Vidalia.
Darden, Horace, Sparta.
Davenport, T. F., Atlanta.
Davidson, A. A., Augusta.
Davis, Abe J., Swainsboro.
Davis, E. B., Byromville.
Davis, Robert Carter, Atlanta.
Davison, Hal M., Atlanta.
Deal, B. A., Statesboro.
Demmond, E. Carson, Savannah.
Denney, R. L., Alma.
Dimmock, Avary, Atlanta.
Dismuke, H. L., Ocilla.
Dougherty, Mark S., Jr., Atlanta.
Dove, W. B., Macon.
Drane, Robert, Savannah.
Dreyfuss, Max L., Macon.
Duncan, John B., Atlanta.
DuPree, Geo. W., Gordon.
DuVall, Beecher, Atlanta.

E

Eberhart, Chas., Atlanta.
Echols, Geo. L., Milledgeville.
Edwards, Franklin D., Camp Wheeler.
Egan, P., Moultrie.
Elkin, Daniel C., Atlanta.
Equen, Murdock, Atlanta.
Erwin, H. L., Dalton.
Eskridge, Frank, Atlanta.

F

Farmer, Hall, Macon.
Felber, Ernest, Atlanta.
Ferguson, I. A., Atlanta.
Ferrell, Haskins, Jr., Atlanta.
Ferrell, R. G., Jr., Dublin.
Ferrell, Thos. J., Waycross.
Fletcher, Elizabeth, Augusta.
Florence, Loree, Athens.
Flournoy, H. C., Warwick.
Floyd, Thos. J. Jr., Griffin.
Fountain, Jas. A., Macon.
Fowler, C. Dixon, Atlanta.
Fowler, Major F., Atlanta.
Fowler, R. W., Marietta.
Fowlkes, Claude, Atlanta.
Franklin, R. C., Swainsboro.
Freedman, Arthur, Atlanta.
Fulghum, Chas. B., Milledgeville.
Fuller, Geo., Atlanta.
Funke, John, Atlanta.
Funkhouser, W. L., Atlanta.

G

Gabler, Regina, Atlanta.
Gallemore, J. L., Perry.
Garner, J. E., Thomaston.
Garner, John P., Atlanta.
Garrard, J. I., Milledgeville.
Garver, C. C., Atlanta.
Gatewood, T. Schley, Americus.
Gay, J. Gaston, Atlanta.
Gay, J. R., Homerville.
Gay, T. Bolling, Atlanta.
Gholston, W. D., Danielsville.
Gibson, F. N. Thomson.
Giddings, Glenville, Atlanta.
Giddens, I. S., Millen.
Gilbert, R. B., Greenville.
Gilliam, O. D., Columbus.
Gleaton, E. N., Savannah.
Goldsmith, Wm. S., Stone Mountain.
Goldstein, J. J., Macon.
Goodwyn, T. P., Atlanta.
Goolsby, R. C., Jr., Macon.
Goolsby, R. C., Forsyth.
Green, A. J., Union City.
Green, J. A., Jr., Atlanta.
Green, Samuel, Atlanta.
Greenberg, I. L., Atlanta.
Grenblatt, Robert B., Augusta.
Greene, Edgar H., Atlanta.
Griffin, Claude, Atlanta.
Gross, O. S., Vidalia.
Grove, Lon, Atlanta.
Guffin, T. F., East Point.

H

Hahne, L. J., Savannah.
Hailey, Howard, Atlanta.
Hall, John L., Macon.
Hall, Thos. H., Macon.
Hall, Wilbur, Calhoun.
Hamilton, W. F., Augusta.
Hamm, W. G., Atlanta.
Hammond, G. W., Newnan.
Hammond, R. L., Jackson.
Hanson, J. F., Macon.
Harbin, Lester, Rome.
Harper, Sage, Wray.
Harper, H. T., Augusta.
Harris, M. H., Atlanta.
Harrison, M. T., Atlanta.
Harrell, H. P., Augusta.
Harrold, C. C., Macon.
Harrold, Thomas, Macon.
Harvard, V. O., Arabi.
Hatcher, Milford B., Macon.
Haynes, W. J., Atlanta.
Head, M. M., Zebulon.
Helton, B. L., Sandersville.
Henry, J. A., Atlanta.
Hensley, E. A., Gibson.
Hewell, Guy C., Atlanta.
Hill, Roy A., Thomasville.
Hilsman, A. H., Albany.
Hitchcock, J. P., Augusta.
Hodges, J. H., Hapeville.
Hodgson, Fred G., Atlanta.
Holland, S. P., Blakely.
Holloway, Geo. A., Atlanta.
Holmes, Champ, Atlanta.
Holmes, J. P., Macon.
Holmes, L. P., Augusta.
Holmes, Walter R., Atlanta.
Holton, C. F., Savannah.

Howard, Lee, Savannah.
Howell, Stacy C., Atlanta.
Hutchins, W. J., Buford.
Hunt, K. S., Griffin.

I

Ingram, A. Starr, Atlanta.

J

Jackson, J. H., Barnesville.
Jackson, Robert T., Macon.
Jackson, Zach W., Atlanta.
Jardine, Dan A., Douglas.
Jarrett, W. D., Macon.
Jenkins, Wm. F., Columbus.
Jenkins, J. I., Hartwell.
Jernigan, C. S., Sparta.
Jernigan, H. W., Atlanta.
Johnson, A. M., Valdosta.
Johnson, J. E. L., Roberta.
Johnson, W. A., Elberton.
Johnson, Walter R., Macon.
Johnston, Z. V., Calhoun.
Jones, J. P., Macon.
Jones, Jack W., Atlanta.
Jordan, W. P., Columbus.

K

Kay, Jas. B., Byron.
Keen, O. F., Macon.
Kelley, D. C., Lawrenceville.
Kelley, W. A., Atlanta.
Kelly, G. Lombard, Augusta.
Kemper, Clifton G., Atlanta.
Kennedy, R. L., Metter.
Kenyon, Steve P., Dawson.
Ketchin, S. C., Louisville.
King, J. L., Macon.
King, John T., Thomasville.
King, O. D., Bremen.
Kirkland, Spencer, Atlanta.
Kite, J. H., Atlanta.
Kracke, Roy R., Atlanta.
Kusnitz, Morris, Jr., Alamo.

L

Lamm, J. H., Atlanta.
Lancaster, E. M., Shady Dale.
Lang, G. H., Savannah.
Lange, J. Harry, Atlanta.
Lanier, J. E., Moultrie.
Lanier, L. I., Soperton.
Leadingham, R. S., Atlanta.
Leaphart, J. A., Jesup.
LeRoy, A. G., Tifton.
Leslie, J. T., Griffin.
Levin, Harold, Atlanta.
Lewis, John R., Louisville.
Lewis, S. J., Augusta.
Linch, A. O., Atlanta.
Little, Arthur D., Thomasville.
Little, Tom F., Tifton.
Lokey, Hugh M., Atlanta.
Long, H. W., Milledgeville.
Lord, C. B., Jefferson.
Lott, Oscar H., Savannah.
Lowance, Mason I., Atlanta.
Lunsford, Guy G., Atlanta.

M

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Mass, Max, Macon.
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THE PLIGHT OF THE ARTHRITIC

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During the last few years sanitarians have been directing more and more attention to the control and care of chronic disease, particularly tuberculosis, cancer and heart disease, and well they may, for this group of disabled persons represents about 12 per cent of the total population. It is only quite recently, however, that any interest has been shown in chronic arthritis and rheumatism, a group which numerically is by far the most important of the chronic diseases. For example, in Massachusetts, Bigelow and Lombard found that there were approximately 500,000 persons in that state afflicted with chronic disease, and that of these, 138,000 could be classified as rheumatic or arthritic. Heart disease came second, with 84,000 cases, while tuberculosis accounted for only 16,000. These figures indicate how much more prevalent chronic arthritis and rheumatism are than either heart disease or tuberculosis. Rheumatism and arthritis exceeded all others in total numbers of those completely disabled. Chronic arthritis also exceeded all other diseases in duration. There is an old tradition that rheumatism prolongs life and certainly the arthritics seem to hang on for a long time. Bigelow found that the average cardiac case lives seven to nine years, while the rheumatic patient lives fourteen years or more. Rheumatism cripples in the largest number of cases and kills in the smallest number. This ability to cripple without killing would seem to put chronic rheumatism in the lead of all other chronic diseases as of preeminent social, economic and medical importance.

Physicians and hospital superintendents encountered in the course of the Massachusetts survey on chronic disease often remarked that though the cancer problem was large and the death rate was steadily increasing, it was small in comparison to the problem of rheumatoid arthritis, both from the humanitarian and economic standpoint. The studies of illness in the population of Hagerstown, Maryland, conducted by the U. S. Public Health Service, also found rheumatism to be the most frequent cause of chronic illness, 35 per cent more frequent than heart disease.

The medical facilities which are now offered for patients with chronic arthritis are surprisingly inadequate. Nearly two-thirds of the patients suffering from chronic arthritis in Massachusetts were not receiving medical care. They were either treating themselves or receiving no treatment whatever, varying from fifty per cent of well-to-do patients to seventy-six per cent of poor patients. The explanation given by nearly half was that the doctor was unable to help them. Economic reasons of course were the excuses offered by many others.

Contrary to the general opinion, chronic rheumatism and arthritis are not essentially diseases of old people. Pemberton analyzed the age of onset in 536 cases of chronic arthritis and found that between 70 and 80 per cent of all cases begin before the age of 50. The highest incidence for both males and females is between 30 and 50. In these

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two decades approximately 50 per cent of cases have their onset.

The British Ministry of Health in its classification of "rheumatic diseases" includes almost equal numbers of articular and nonarticular cases, such as sciatica and lumbago. Adopting this wider term, rheumatism causes nearly one-sixth of the total disability of England, with an estimate of two million pounds of sick benefit and a loss of three million weeks from work per annum.

In America the arthritis and rheumatism problem has been woefully neglected. Indeed, it may be truthfully said that this country is practically without facilities for treating chronic diseases of the joints.

It is clear from these figures that there is no justification for the present indifference to the rheumatism problem in this country. While the etiology of chronic arthritis is still debatable, its treatment is entering a much more hopeful phase, partly because of our better understanding of arthritis and also because new methods of treatment are being introduced and perfected. Even in the existing state of knowledge there is much that can be done to prevent, alleviate or cure chronic arthritis. One thing is certain and that is that at the present time a very small minority of this group of sufferers is able to procure that form of treatment which clinical experience has proved necessary to recovery.

Chronic arthritis is one of the most ancient of known diseases. Some of the earliest fossils present evidence of osteoarthritis. The changes found in the vertebrae of certain prehistoric animals closely resemble those found in the spines of elderly human beings at the autopsy table. At the Museum of the University of Kansas there is a skeleton of a large mosasausus, the foot-bones of which show the characteristic changes of chronic arthritis. This is probably the earliest example of multiple arthritis in a fossil vertebra.

Osgood points out that the cave man of the Pleiocene Age suffered from arthritis of the spine. The Java man of the same period showed similar changes. Coming down to historical times, Sir Mark Ruffle, in a careful study of the mummies of ancient Egypt has given us a fine description of the arthritic changes which are frequently encountered in the Egyptian skeleton. It is particularly interesting to us today that the ancient Egyptians had arthritis, for Egypt, because of its very dry, hot climate, is now looked upon as one of the countries where arthritics may go to take the cure. It should be added, however, that these changes which we are describing in the bones of animals and ancient man represent the so-called senescent form of arthritis. By this we mean the changes which occur in the joints with advancing age whether it be animal or man.

Arthritis is a disease of the temperate zone. It is rarely encountered in the regions about the north or south pole or at the equator. It becomes progressively less common as one leaves the neighborhood of Montreal or New York and proceeds southward toward the tropics. It is fairly common, however, in the southern part of the United States. Dampness is an important factor and indeed explains why there is so much rheumatism and arthritis in Great Britain and Ireland.

From the earliest times occupation has been looked upon as another important factor in the production of arthritis. The joints which are subjected to the hardest usage most often present the signs of arthritis in the hands as compared with its rare occurence in the toes. Furthermore, injuries, strains, bad posture and other physical defects predispose to arthritic conditions. Hippocrates, describing the Scythians who rode much on horseback, said they were frequently affected by lameness and stiffness in the hip joints and that sciatica was very common among them.

Another well-recognized factor in rheumatism is sex. It is about three times as common in women as in men. Charcot, the French investigator, observed that arthritis was particularly common in poorly nourished women. The reason for this preponderance of arthritis in women is not understood.

Age has an important bearing on the development of arthritis. The deforming

type occurs most frequently in the earlier decades, that is, in the twenties, thirties and forties. The senescent type usually makes its first appearance after fifty. Anthropologists generally recognize two general types of human constitution. One, the slender or carnivorous type, the other, the stocky, well nourished, or herbivorous type. The first type have been called the *dolichocephalic;* the stocky type the *brachycephalic.* The slender type is usually the more sensitive and emotional. The stocky type tends to be placid and emotionally stable. The deforming type of arthritis is more prone to attack the slender dolichocephalic.

We divide arthritis into two large groups: First, the rheumatoid or infectious type which is presumably caused by bacteria; second, the degenerative type which comes on in middle life as one phase of the senescent process, or more accurately speaking, it is an actual wearing out of the joint surfaces. Senescent arthritis is extremely common in middle and old age, and often exists without causing symptoms. The rational treatment consists of rest, elimination of joint strain and wear in various forms, including hydrotherapy, electrical therapy, etc.

Rheumatoid arthritis, that is, the form caused by infection, is a much more important problem because it so frequently leads to deformity and crippling. Almost any pathogenic germ is capable at times of causing an arthritis. For example, we occasionally see joints infected with the tubercle bacillus, or the organisms which produce syphilis, pneumonia, typhoid fever, dysentery, etc. Such forms of arthritis are comparatively uncommon and usually present themselves as complications of a preexisting infection. The disease with which we are chiefly concerned, however, is a form of infectious arthritis which differs from the other forms in several important respects. It is quite a prevalent disease. It is a chronic disease, and its cause is not yet established.

Rheumatoid arthritis in its incipiency appears innocent enough. There is a slight swelling of the fingers and knuckles and perhaps a little discomfort in the knees. The patient has no realization of what serious possibilities may be in store. For a while, maybe for several weeks or months, the victim may ignore the symptoms. Finally the family physician is consulted. If he is a well-trained physician and has some imaginative faculty, he senses the danger at once. Unfortunately there are a good many doctors who, because of their failure to recognize this, or because of pre-occupation with other problems, treat incipient arthritis lightly. They give the patient some aspirin and advise him to take hot baths or some other form of heat therapy. Too often no attempt is made to impress the patient with the serious possibilities which accompany the disease. The weeks and months pass. Another winter comes on. With the arrival of cold weather, the symptoms increase in severity. The patient and her family become alarmed. Other medical advice is sought, or perhaps the patient strays into the hands of some charlatan who is supposed to perform miracles on rheumatic cases. After a year or so of pain and swelling in the joints, deformities begin to make their appearance and some of the joints cease to function entirely. The articulating surfaces become frozen together and ankylosis takes place. Once the joint surface has been destroyed, there is very little likelihood of a return of function in that particular joint. In other words, the joint, so far as function goes, is lost forever, and the problem then becomes one of preventing similar catastrophes in other joints.

In the chronic progressive case, the patient becomes a bed-ridden, or at least a chair-ridden, invalid in the course of five to ten years. Fortunately this tragic end result does not occur in every case. In a limited number of instances the arthritic makes a complete and permanent recovery. Others are temporarily cured and have one or more relapses. There is a large group of cases in which the disease becomes chronic and stationary. The patient is in more or less constant discomfort and the joints are disfigured. They can be fairly active, however, and some of these patients continue their daily vocation with a fair

degree of efficiency. I know a number of arthritics whose condition has undergone practically no change in the course of five or six years. Many have their ups and downs, feeling fairly comfortable at one season of the year and very miserable during another season.

One of the most interesting things about rheumatoid arthritis is that the disease itself never kills its victim. The patient may become a chronic invalid and because of lowered vitality be a more ready prey to some other infection such as pneumonia, but arthritis itself never kills.

I often remark to my students that there are only two great mysteries left in medicine. One is cancer; the other, arthritis and rheumatism. By rheumatism I mean acute rheumatic fever, which is a form of arthritis closely related to rheumatoid arthritis, but seen chiefly in children, and a serious problem because of its tendency to produce rheumatic heart disease.

The cause of rheumatoid arthritis and rheumatic fever is still obscure, though there is evidence that they are both related in some way to the streptococcus. The tonsils, sinuses and teeth have also been blamed for a certain number of cases. These infections which originate in the tonsils, sinuses and teeth are usually of streptococcal origin and when a careful history is taken on arthritic patients, the physician can occasionally establish a close association between the focal infection and the subsequent onset of pain and swelling in the joints. Much has been said and written about the relation of focal infection to rheumatism and arthritis. As a result of this propaganda, the removal of tonsils and teeth and surgical drainage of the sinuses have all become popular procedures, and there is no question that in some cases arthritic patients are relieved by removing these sources of infection. It is equally true, however, that there has been much unnecessary removal of tonsils and teeth and much unnecessary surgery on the sinuses.

We now come to the most important part of this discussion, namely, that particular phase of the problem which is suggested in the title.

The plight of the arthritic has to do with the treatment and general handling of this type of case. Let us admit at the outset that the treatment of arthritis is in many respects unsatisfactory, especially for patients who are without means and therefore cannot take advantage of the many facilities which are helpful, but expensive. When we find a disease being treated by a great many different methods, it is a safe assumption that none of the methods is entirely satisfactory. This is the case with arthritis. Some of the forms of treatment date back to classic times. The Greeks and the Romans made great use of hydrotherapy and the old Roman baths at Aix-les-Bains in France and at Bath in England testify to the vogue that hydrotherapy enjoyed in ancient times. One of the most venerable methods of treating arthritis is by means of bee venom. The Greek physician, Galen, used dead bees. In olden times, bee stings were recognized in both Saxony and Bavaria as a remedy for gout. The early homeopaths had a good deal to say about extract of bees, or *apis*, and used it a great deal in the treatment of arthritis and rheumatism. Even in modern times, bee venom and bee stings have been highly regarded by some practitioners. The good effect is probably to be attributed to the counter irritation produced in the inflamed joint.

I recently composed a "therapeutic alphabet" for arthritis with one or more remedies listed under each letter. It is true that many remedies have been proposed for arthritis and that many new ones appear every year. However, there are certain fundamental principles in the treatment which all thoughtful physicians accept and practice in the handling of these cases. The most important of these fundamental principles is rest, and with rest, release from the ordinary cares and responsibilities of daily life. It is difficult, often impossible, to obtain this kind of rest in the patient's home. For this reason, sanitariums would be ideal if institutions especially qualified to treat the disease were available. Unfortunately such sanitariums do not exist in this country or in any country at the present time. To be sure, there are excellent insti-

tutions both in America and Europe where patients of means can go and be efficiently treated. However, there is no point in patients retreating to such an institution unless they can remain there for six months or even longer to receive the full benefit of the cure. Such a prolonged sojourn involves the expenditure of funds far beyond that possessed by most arthritis patients.

There are other fundamental principles almost as important as rest in the treatment of arthritis. Especially trained men are essential for the application of physiotherapy, hydrotherapy, etc. The growing popularity of artificial fever and blood transfusions in the treatment of rheumatoid arthritis indicate the importance of providing special facilities for the care and treatment of the arthritic patient. One of the most important aspects of the arthritic problem has to do with the mental and emotional life of the patient. It is being recognized more and more widely that the majority of arthritics associate the onset of their arthritis with some sort of physical or psychic shock. This may have been a death in the family or a long-sustained anxiety and responsibility such as would result from nursing a father or mother through an illness. It might follow financial disaster or a divorce suit. It may have been nothing more serious than the birth of a child. However, most arthritics are nervous people of the slender type whose nervous systems can stand only a limited amount of shock.

Arthritics can be classified temperamentally.

First, there are those who really enjoy being chronically ill. These are mostly old people who for one reason or another have lost their importance in the family or social group and make use of the disease to attract sympathy and attention to themselves. Fortunately this is a rather small group.

2. There is another group of arthritics who accept their disease with remarkable resignation. They feel sorry for themselves, but lack a certain capacity to fight against the onslaughts of the disease.

3. Finally there is the large group of those who object very much to having the disease and want to get over it; but there are several types of "conscientious objectors." Best among these are the good fighters who make up their minds that they want to get well and then do everything in their power to co-operate with the physician, even to following out uncongenial methods of therapy. There is another group who resent the disease. They feel that someone is to blame for their misfortune. The culprit is usually the doctor! Everything he does seems to make them worse. Any new symptom is immediately referred to whatever treatment has been administered the day before. This type of patient is distrustful of the doctor's methods and as a result rarely does well on any form of treatment.

The crucial problem which every arthritic of limited means faces is the question of where and how he shall be treated. Many of these patients might be cured or at least greatly relieved if they could be put in the proper therapeutic environment. The plight of the arthritic is not that his disease can not be cured, at least in the early stages, but that he is *unable* to have it cured—a sad commentary on medical efficiency so far as arthritis is concerned. Even if he is a mild case he is in great need of rest, but so often he is not able to take the rest required. How can the average man of small salary rest in the midst of a busy day for two hours after lunch? What office will permit such procedure no matter how capable the patient may be? So what can he do? He goes on working until perhaps the time comes when he can work no more. Even if the patient finds he can make the sacrifice and give up work altogether, there are so few institutions prepared to handle his case properly. If he develops tuberculosis there are one or more fine institutions in every state prepared to take care of him and give him the most modern forms of treatment. If he gets cancer there are cancer hospitals in our large cities which will render efficient aid. If he loses his mind he can always be committed to a state institution for the insane. Many states are now providing free treatment for venereal disease. But where can the arthritic go?

He stays at home and becomes a nuisance to himself and to his family.

What we need are institutions especially equipped for the study and care of arthritic patients. These will probably come in time. Public health is no longer concerned exclusively with water and garbage and the contagious diseases. Forward-looking sanitarians realize that perhaps the biggest problem of all in public health is the chronically ill patient. A time will come when every state in the Union will have one and perhaps several special institutions for the care of the arthritic. I really believe that if half as much research were now being concentrated on arthritis as there is on tuberculosis or cancer, the problem would be solved within the next five or ten years. Presumably these institutions will be built in the country where patients can enjoy the sun-light and fresh air. No doubt some of them will be built in the tropics or near-tropics where advantage can be taken of the warm climate; but at the present time there is need of one or more first-class institutions in some one of our large medical centers where intensive study and investigation can be undertaken into the cause and nature of arthritis and rheumatism.

In Europe hydrotherapy is considered an invaluable adjunct for the treatment of rheumatism, and spa hospitals are much in vogue. No physician who investigates this subject can fail to realize that in both Great Britain and Europe much better provision is being made for the care of chronic arthritics than there is in this country.

It is extremely unfortunate that in so many quarters chronic arthritis is still looked upon as an incurable disease. Pessimistic statements that nothing can be done for it are too frequently made to the discouraged patient. As Pemberton remarks, a fatalistic attitude of hopelessness can not engender much enthusiasm on the part of the profession to study the problem, but tends rather to beget further indifference.

Clinics for the study and treatment of arthritis have been established at many centers of medicine, particularly in the large cities, and for the first time in the history of American medicine, chronic arthritis is being subjected to exhaustive research in several of our leading university clinics. This movement is already reflected in medical literature, and a number of really important and fundamental contributions have been made to the subject during the last few years. In view of this awakening of interest in the arthritis problem, both among sanitarians and clinicians, it is reasonable to believe that within the next few years better provision will be made for arthritics than has been made in the past in this country. Just how the problem will be solved, the writer is not prepared to say, but he ventures to prophesy that it will be along lines somewhat different from those in Great Britain and Europe. There will probably be less emphasis placed on physiotherapy and spa treatment, though hydrotherapy, massage and exercises will all be stressed. The spa tradition is not so strong in America as it is on the other side. In place of the spas, we will probably develop well-equipped sanitaria in the country or in great cities. These sanitaria will be similar in design to those already existing for the care and treatment of tuberculosis and will be supported largely by the State and Federal Governments. They will be provided with modern facilities for the treatment of arthritis, and in addition will have well-equipped laboratories for research on this difficult problem.

The three forms of treatment that are most talked about today in the field of rheumatoid arthritis are: (1) vaccine treatment, (2) vitamin D therapy, and (3) gold therapy.

(1) The treatment of rheumatoid arthritis with streptococcus vaccine has long been popular, and there are many who still believe that vaccine therapy is the safest and best method of treating this disease. While vaccines appear to help certain cases, it is disappointing in many others, and it must be admitted even by those who are vaccine enthusiasts that this form of therapy is not so popular as it was several years ago. A stock streptococcus hemolyticus vaccine is usually employed and may be administered either subcutaneously or intravenously. If given intravenously, the initial

doses must be small, not over one hundred thousand bacteria, in order to avoid shock reactions.

(2) Vitamin Therapy. — Vitamins are given for their tonic effect in arthritis and to compensate for any vitamin deficiency which may be present. Strong claims, however, have been made for concentrated vitamin D as a specific therapeutic agent in rheumatoid arthritis. The situation here is somewhat like that in the case of streptococcus vaccines. A few patients seem to be greatly helped by concentrated vitamin D; there are many more, however, who do not respond favorably to this treatment. It is customary to give fifty thousand units of vitamin D and to raise the dose to a hundred thousand units three times a day if desirable. Large doses often cause gastrointestinal disturbances and in some patients they also produce a hypercalcemia.

(3) Gold Therapy. — Gold salts have been used for a decade or more in the treatment of rheumatoid arthritis, but only quite recently have achieved some popularity in America.

We began working with gold salts in the treatment of rheumatoid arthritis in 1933, shortly after the visit of Dr. Jacques Forestier to this country. We had only treated a few cases, however, before we ran into trouble in the form of a severe exfoliative dermatitis. This experience cooled our enthusiasm somewhat, but we continued using gold salts on selected cases during the folfowing five years. In 1938 we began to use gold intensively, and during the past three years, practically all of our rheumatoid cases have received gold therapy. Altogether we have treated 245 cases of rheumatoid arthritis with gold salts.

Three different gold preparations were used in this study: (1) Gold sodium thiomalate (Myochrysine), (2) Aurothioglucose (Solganal-B Oleosum), and (3) gold sodium thiosulfate.

The first two agents were given intramuscularly, the gold sodium thiosulfate intravenously.

The usual plan was to start the patient with 10 milligrams and work the dose up to 50 or 100 milligrams. Occasionally patients received 200 milligram doses, but this was very unusual.

The total dosage for the first course of treatment was 1 to 2 grams, depending on various circumstances. Some patients, however, who were sensitive to gold and developed toxic symptoms, received much less.

After a rest period of six to eight weeks, a second course of gold therapy was instituted. Some patients received four to five courses.

The blood and urine of patients receiving gold were examined once a month for signs of intoxication. The sedimentation rate of the red blood cells, by the Rourke & Ernstene method, was determined before treatment was started and repeated every two to three months while gold was being administered.

In the case of patients who developed toxic manifestations, gold therapy was immediately discontinued, sometimes temporarily, sometimes permanently.

In 197 cases who received adequate treatment, 31 per cent had a complete remission with respect to swelling and pain in the joints. Thirty-five per cent showed marked improvement. In other words 66 per cent became either inactive or greatly improved. Thirty-four per cent of the patients who had remissions, however, relapsed, after a few weeks or months. Fifty per cent of the greatly improved group relapsed. Relapses were definitely milder than the original attack. Of those who relapsed, many again showed great improvement when given further gold treatment. Although 50 per cent of our patients, including those who relapsed, were finally rendered either inactive or greatly improved at the time this study was closed. Of the fifty patients who had remissions, the remission lasted more than a year in 52 per cent.

Toxic Reactions.—The total number of significant toxic reactions was 42 per cent, a figure which checks closely with that of some of the preceding studies. The skin and mouth lesions are most common. Exfoliative dermatitis is most unpleasant. One questionable fatal reaction was in an elderly

woman of seventy, who died of ulcerative enteritis several weeks after one 25 milligram injection of Myochrysine. However, the patient had had intestinal trouble for years.

From these figures it is evident that gold salts produced a complete remission in approximately one-third of the patients treated, and marked improvement in another third. In cases treated early in the disease (duration less than one year), almost four out of five either became inactive or were greatly improved. It is obvious that these results are definitely better than can be obtained by any other single method of treatment.

Joseph Miller's famous remark about the inevitable seventy per cent of rheumatoid patients who improved under almost any kind of treatment has been much quoted. Remissions of course do occur in rheumatoid arthritis, but the patient may have to wait six years for the remission. Gold therapy will often induce a remission in six weeks or at most in six months.

When we have said that gold is the best single agent for the treatment of rheumatoid arthritis, we have not made a sensational statement, for certainly most other forms of treatment are very disappointing. On the other hand there is no reason to believe that gold therapy has reached its maximum development. Sabin has recently shown that calcium gold thiomalate is much less toxic for animals than the sodium salt. The recent studies of Ellman and Lawrence indicate pretty clearly that the best results are obtained with large doses of gold, much larger indeed than most of us are willing to give, and this has been our own experience. Seventy-seven per cent of the remissions in our series had over one gram of gold, whereas only 41 per cent of those who showed no improvement had a total dosage of one or more gram. Or, to restate it, only 22 per cent of the patients in the remission group received less than one gram of gold, whereas 57 per cent of patients in the no improvement group received less than one gram.

We must conclude, therefore, that gold is a dangerous form of treatment and requires close observation of the patient and frequent examination of the blood and urine. In spite of its dangers, however, its beneficial effect on the course of rheumatoid arthritis would seem to justify its use in patients who can tolerate the drug.

PHYSICIAN, CARE FOR THYSELF

Eustace A. Allen, M.D.
Atlanta

The present world conflict has altered the lives of millions of people throughout the old world, where chaos and desolation are rampant. Since Americans will not be able to isolate themselves, the destiny of the people in this country will be affected by world conditions. There is no getting around the fact that there will emerge from this upheaval a definite change in American life. What these changes will be is uncertain but they will involve many of the social standards of all Americans. Among those who will be affected are physicians, and the danger in the changes in our profession demands our guarded consideration and firm action.

The American people are having the easiest life and are enjoying the highest standard of living of any nation in the world. We are so accustomed to a life of ease and pleasure that we have come to expect miracles to save us whenever we are in trouble. We do not wish to have our routine of living disturbed nor do we worry about how or who produces this life of ease so long as we can enjoy it without disturbance. The ideal life, as visioned by the average young American, is a round of entertainment, automobiles, motion pictures, radio and a freedom from care. That is as it should be so long as it does not sap the life and fundamental principles of America.

Medical science has played a great role in producing the American way of living, and many of the greatest advances in medicine have been made during the twentieth century. The average length of life today has reached the all time high of 63 years, which is an increase of twenty years during this century. In fact, we are rapidly becom-

ing a nation of older people. During this period many medical miracles have been produced, among which are the control of diphtheria and typhoid by immunization, pernicious anemia with liver therapy, diabetes with insulin, pellagra with nicotinic acid, streptococcal infections with sulfanilamide, pneumococcal infections with sulfapyridine; staphylococcal and gonococcal infections with sulfathiazole, which is also used with great benefit in pneumonia and many other diseases. The tuberculosis death rate has been reduced almost fifty per cent. Surgery, anesthesia and obstetrics have been making great strides forward.

Organized medicine has done more than all other organizations, even the Federal Government, in the promotion of health and in the prolongation of life. It has been estimated on good authority that the American doctors contribute free service amounting to $1,000,000.00 per day, which is about one-fourth of their service. Since 1929 the general practitioner's income has been reduced about twenty per cent, and at this time the average income for a physician in Georgia is about $2300.00 per year. Yet, there have been no reduction in working hours, no sit-down strikes and no clamor for higher fees for the physician; he continues, subject to call for twenty-four hours every day in the year, for as many years as he is able to work; he is always ready to aid in any worthy cause where health and the betterment of the race are involved; he responds loyally to the nation's call when the freedom of his country is threatened, and it seems that it should be said of him, "Well done, thou good and faithful servant."

I wish that it were true that our position is secure and we might continue our honest efforts to destroy disease and save lives in an orderly manner. Medical science has weathered the storms of countless political and social upheavals, but we are now under the scrutiny of the economist and are told that the war against medicine is an economic one. It will take concerted action on the part of all physicians if we are to hold our justly won place in the world of today. It is essential that all ethical physicians unite and work together behind well chosen leaders who can guide us in the preservation of the existing standards of our profession. The physician has encountered many problems and disappointments in the past few years: depression, increased taxes, many inroads into private practice, the conviction of the American Medical Association as a trust, clamor of the politician and many ill-advised people for government controlled medicine, and insecurity in old age. These things are discouraging but with alert, devoted and intelligent attention to our cause, confidence should be restored and hope for success renewed.

The Medical Association of Georgia, at its latest annual session, set in motion a plan to care for the indigent, sick and needy physicians of Georgia. Many other states have such a plan and our Association is to be commended for this forward step. It will be wonderful to ease the mind and body of our aged physician who has devoted his life to the care of others, with no thought of his own old age. It is our duty to care for them and unless we do so they will not be cared for, as our Federal social security and old age pension is not for them.

Let us fortify our organization with loyalty, with courage, with generosity and with friendship, working as a unit for the welfare of our profession. We are not the first to take up the new, nor the last to discard the old, but if we are permitted to work out our own salvation I am sure it will be to the best interests of the community and will lead to a longer and better life for the peoples of this great republic. God forbid that the practice of medicine shall cease to be an art and a learned profession and become a trade governed by red tape and political trends of our times.

We have been forced into a political fight for our aims and our livelihood. Politics is a new field for the most of us and we cannot accomplish anything unless we put up a united front. Therefore, it is necessary that all men in organized medicine be united and that we bring every physician, who has the qualifications, into our organization resolved to work together for the high aims which our profession has established.

THE PRESIDENT'S PAGE

June 25.—June Journal received today. Dr. Patterson's "meaty" address deserves study by all of us. "Georgia's Medical Problems of Today" are many but they are being solved by the united efforts of the medical profession, the communities, public spirited citizens and health workers. Georgia is becoming a healthier state in which to live.

* * * *

Calendar of Activities

May 25.—Attended meeting of the Board of Trustees of the U. S. Pharmacopeial Convention in New York City as Chairman of the Committee on Constitution and By-Laws. This body—more than 120 years old—is working constantly to improve, simplify and make more generally useful the U. S. P. which is now recognized as official by the Federal Government. A more general use of the U. S. P. will help the medical and pharmaceutical professions, and the public at large. The U. S. P. XII is expected off the press this fall.

May 31 — Attended reunion of 1908 Class of the University of Georgia in Athens. Only thirteen were present but the interest in "old times" made up for the lack of numbers.

June 2-6—At A. M. A. in Cleveland. The forceful address of President Lahey demonstrated militant leadership. Of special interest to all Georgians was the elevation of our own C. W. Roberts to the Board of Trustees of the American Medical Association. This was a signal honor for work well done and will be of great value to the profession of the entire Southeast. It demonstrated again the high esteem in which our Georgia profession is held in national circles. Our delegates, Roberts, Myers and Weaver, answered every roll call as they have done for many years past. We owe much to them for their faithful work for us in the House of Delegates. The attendance at Cleveland was 7,269 physicians—from Georgia 43.

June 19—To the Third District Medical Society at Americus. The scientific program consisted of papers by Gatewood, Eubanks, Venable and Blackman. The subjects were timely and interesting to those in attendance. The Third District has long been noted for its good work in organized medicine, having furnished four presidents of our Association in one generation. One of these, Dr. V. O. Harvard, of Arabi, was present with his usual helpful interest. The Woman's Auxiliary had an enthusiastic meeting under the direction of its able District Manager, Mrs. C. P. Savage, of Montezuma. After the business session all adjourned to the home of Dr. and Mrs. A. C. Primrose where a most elaborate barbecue was served with all the "fixin's". A doctor's wife remarked: "The Primroses are fine people. They have eighteen cats and two dogs. What is greater proof of their kindliness?" All agreed with her. President Elliott presided with dignity and efficiency.

June 10-12 — Emory Clinic. President Pruitt and his co-workers arranged a splendid program for the three days, terminated by a delightful banquet. On Tuesday night, June 10, attended a reunion of the A. S. M. Class of 1911 at the beautiful home of Dr. and Mrs. Pruitt. Thirteen members and their wives were present to enjoy this festive occasion.

June 26 — Attended the Sixth District Medical Society at Sparta. A terrific downpour of rain threatened this meeting but the good old sixth district was not deterred. President Chrisman, Vice-President Rawlings and Secretary Ross had arranged a wonderful program and it brought the crowd. The Child Health Demonstration Clinic of Hancock County, at Sparta, was discussed by Director Moore; "Georgia's Child Health Demonstration" by Director Abercrombie, and "Georgia's Nutritional Problems" by Sydenstricker. Discussion was by Jernigan, Hal Davison, Earl, Darden and others. Following the scientific work we visited the health clinic conducted by Director Moore and assistants, both regular and voluntary.

As at Americus, the Woman's Auxiliary

(Continued on Page 330)

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.
JULY, 1941

MEDICAL ADVANCE IN GEORGIA

In the gray nineties, known by some as the "gay nineties," Birtie, aged three, who was gravely ill from colic, presumably due to grape seed, was not improved after three days of peachtree-leaf poultices to her abdomen and good nursing day and night by her neighbors and her kind, soft-spoken doctor. Decision was reached to send "'way off"—fourteen miles—for a big doctor. He came, actually wearing a hightop hat and long tail coat. Even we children without the door heard the fateful word, appendicitis. The grown folks did not know the meaning of that word. The big doctor explained that Birtie would be dead in three days and sped away without offering surgery. It was too soon for surgery in rural South Georgia.

At the turn of the century it was not an unusual sight to see a doctor stitching an extensive wound without using an anesthetic, while neighbors stood by impressed both with "the nerve" of the patient and his physician. Medicines were used in large quantities, with great secrecy but with more faith and hope. Hookworm, typhoid fever, dysentery, tuberculosis and the acute infectious diseases took their toll little effected by treatment.

Keen observations by physicians and others interested in health, including the foundations, gradually gained the upper hand against these diseases, largely through public health which had its real beginning in Georgia in 1903. Pellagra, puerperal sepsis, infant mortality and proper nutrition were problems which demanded attention a little later.

During recent years progress has been most gratifying in surgery, anesthesia and medicine, including preventive measures. Yet there remains much to be learned, particularly in the field of nutrition. Unquestionably there is sufficient knowledge now to prevent most diseases. Many doctors in active practice have changed their viewpoints from curative to preventive medicine. This plan has worked to the satisfaction of all concerned in dealing with malaria and one or two other diseases for which specific treatments were available.

Preventive medicine is best practiced by trained public health workers who should be made permanent residents of every county in Georgia. No finer investment could be made to assure the rapid advance of our State.

The gravity of this subject was shown in "Selective Service", Washington, D. C., in the June 6, 1941, issue in a headline: "Physical Status of the American Youth Shameful Says Hershey, Calling for Corrective Action. One-third Unfit for Full Service. We nationally should be ashamed." Three hundred and eighty thousand registrants out of 1,000,000 have been found unfit for general military service. This is, of course, a challenge which doctors and all other health workers must accept, and begin with renewed vigor the fight for freedom from disease. Education, economics and preventive medicine. What a triad! We doctors stand ready to do our part.

J. A. REDFEARN, M.D.

EDUCATION OF THE PUBLIC REGARDING MEDICAL MATTERS

The Medical Association of Georgia has long recognized the necessity of extending its educational program. Four years ago the Committee on Public Policy and Legislation of the Association proposed that the Association create a new committee to be known as the Public Relations Committee, and that sufficient funds be given the committee to augment its activities, such activities to be directed toward a better understanding between the medical profession and the public regarding medical matters.

The Association's treasury could not spare the money necessary to carry on a very active educational program. The members were asked to subscribe to the newly-created Public Relations Bureau. Many members have been generous in their support to the Bureau; others have procrastinated and

thus failed to support the program. The following summary of the financial status of the Bureau is self-explanatory:

Receipts

May, 1937 to March 31, 1938—collected	$2,531.40
April, 1938 to March 31, 1939—collected	1,670.00
April 1, 1939 to March 31, 1940—collected	1,472.50
April 1, 1940 to April 30, 1941—collected	1,475.00
	$7,148.90

Disbursements

May, 1937 to March 31, 1938—disbursed	$ 349.33
April 1, 1938 to March 31, 1939—disbursed	1,080.51
April 1, 1939 to March 31, 1940—disbursed	1,205.00
April 1, 1940 to April 30, 1941—disbursed	1,262.35
May 1, 1941—cash on hand	3,251.71
	$7,148.90

Revenue from subscriptions can be anticipated for one more year. But this meager outlook did not deter the Council and the House of Delegates at the Macon Session in their efforts to improve our educational facilities. These bodies approved the recommendations of the Public Relations Committee, which included the establishment of a film library made up of films dealing with those problems which affect human welfare, and particularly the health of all the people. This library will be financed by the Medical Association of Georgia but its personnel as well as the cost of booking and mailing films will be supplied by the State Department of Public Health. In addition to the library, moving picture projectors (16mm. sound-on-film) with the necessary accessories will be furnished by the Medical Association to each Councilor of the Association for use in his district. It is believed the Councilors, Vice-Councilors, officers of district medical societies, officers of county medical societies, and district officers of the Woman's Auxiliary can improve their educational programs by using such films and equipment.

After several years of planning the Committee on Post-Graduate Medical Education has begun a program to help district medical societies improve graduate medical education. Already two seminars have been held—one in the Eighth District and another in the Second District—which were well attended by the physicians of those districts. The Association will help finance the program, which has been duly approved. The benefits of such a program will reach the public through the physicians attending the seminars.

There is, and should be, much more in any public relations program. Education is a broad field. To properly educate the public regarding medical affairs a program should include health education in the public schools. There are more than 6,100 of these in Georgia, which hold more than 750,000 boys and girls. The Public Relations Bureau plans to see that each school child and youth gets some kind of simple health message at least once during a school year. Cooperation has been promised by the State Department of Education.

Finally, the Public Relations Bureau furnishes each of the two hundred twenty-five newspapers of Georgia news items regarding current medical topics.

Have you subscribed to the fund which is necessary to carry on this work? If not, please do so now. Your subscription should be sent to the Secretary-Treasurer.

ARE YOU A BACKSLIDER?

Backsliding is a common term among our Southern people. Most of us first heard the word used in churches. As a matter of fact, one preacher illustrated backsliding with the following story:

"Once upon a time I knew a married couple whose greatest ambition was to have children, but for some reason their efforts remained barren. They decided to adopt a child but could not agree on whom they would bestow their name and their love. Finally they decided to adopt some animal. They chose a little pig. The pig was taken into their home where he received every attention, including regular bathing. A nice, clean blue ribbon always adorned his neck. One day the couple took a ride in their buggy. The little, clean, blue-ribboned pig went along. As the horse-drawn buggy approached a creek the horse stopped suddenly. Noises were heard coming from the creek, but before an investigation could be made the little pig jumped from the buggy and slid to the mudhole where his mother, brothers and sisters were having a wonderful time. That, brothers and sisters, was *not* backsliding; that little animal was a pig all the time and they could not make a child of him."

What has this story to do with the Medical Association of Georgia? Well, many expla-

nations could be offered but perhaps one will suffice. The Association is made up of Doctors of Medicine, and there is no substitute for them. The work of the Association must be done by its members; it cannot be delegated to laymen because most of them do not understand our problems. Each year at least one of every ten members is asked by the President to serve on some committee. The success of any committee's work depends on the willingness and cooperation of each member. Have you been requested to serve the Association in some capacity, and have you written President Bunce and pledged your support for the year's work ahead of all of us? In other words, have *you* done your part to make the Medical Association of Georgia a better organization, for better service to our people? If not, then it is quite possible you may be a backslider.

THE PRESIDENT'S PAGE

(Continued from Page 327)

had a splendid attendance and interesting program. The welcome address of Mrs. Jernigan was the most interesting we've ever heard. The President of the State Auxiliary, Mrs. Howard, and President-Elect Mrs. King, were at both Americus and Sparta working for the Auxiliary and the Association. Mrs. Yarbrough, District Manager, is doing great work.

President-Elect Redfearn was in there pitching great ball for organized medicine at both Americus and Sparta. Secretary-Treasurer Shanks was bringing up the heavy artillery to make 100 per cent organization. The reception at the home of Dr. and Mrs. Jernigan was most delightful. The meeting ended with a beautiful and elaborate banquet at the High School. The Sparta meeting brought together three of our most noble veterans, Dr. Horace Darden, of Sparta; Dr. C. C. King, of White Plains, and Dr. J. R. Burdett, of Tennille, who have practiced 62, 54 and 52 years, respectively. All three are still in active practice, alert to modern progress and staunch supporters of scientific medicine.

ALLEN H. BUNCE, M.D.

WE MUST NOT ISOLATE OURSELVES IF WE ARE TO LIVE WITH OURSELVES, SAYS DR. FRANK LAHEY

"If I must face my friends in democracy trying to explain my reasons for seeking dubious safety and leaving them to their fate, I prefer the uncertainties of the hazardous undertaking, frankly faced as hazardous, and to accept them. It is my opinion that if disaster should overtake us . . . it would be no more terrible than what will happen to us if we are to try to isolate ourselves.

"We shall still have ourselves to live with. This nation has been gallant in the past, and it can be gallant again. I do not believe that there is a safe course. In dangerous times such as these . . . it is my conviction that a dangerous course has real advantages."

FRANK H. LAHEY, M.D.

NEWS ITEMS

THE RANDOLPH-TERRELL COUNTIES MEDICAL SOCIETY met at the Patterson Hospital, Cuthbert, June 6. Dr. R. C. Pendergrass, Americus, was the guest speaker.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on June 10. Dr. S. F. Rosen read a paper entitled, *The Skin and Industry—Illustrated with Lantern Slides;* Dr. C. F. Holton and Dr. Lawrence Lee led the discussion.

THE THIRD DISTRICT MEDICAL SOCIETY met at Americus, June 19. Titles of papers on the scientific program included: *Resuscitation of Newborn* by Dr. Schley Gatewood, Americus; *Cancer of the Rectum and Lower Colon,* Dr. Geo. F. Eubanks, Atlanta; *Primary Bronchiogenic Carcinoma of the Lung,* Dr. D. R. Venable, Columbus; *Endoscopy in Diseases of the Chest,* Dr. F. B. Blackmar, Columbus; *Address,* Dr. Steve P. Kenyon, Dawson, Councilor, Third District; *Address,* Dr. Allen H. Bunce, Atlanta, President of the Medical Association of Georgia. The Sumter County Medical Society was host. Refreshments and barbecue dinner were served.

THE SIXTH DISTRICT MEDICAL SOCIETY met at Sparta, June 26. The winter meeting will be held in Macon, December 4.

DR. JAMES J. CLARK, Atlanta, was elected vice president of the American College of Radiology at the recent annual convention in Cleveland, Ohio.

DR. C. W. ROBERTS, Atlanta, was elected trustee of the American Medical Association at its Cleveland session, June 5.

DR. JOHN M. MCGEHEE, Cedartown, has been elected to fellowship in the American College of Surgeons.

THE FULTON COUNTY MEDICAL SOCIETY, Atlanta, met on July 7. Dr. C. W. Roberts made a special report on the proceedings of the House of Delegates at the Ninety-Second Annual Session of the American Medical Association held in Cleveland, Ohio, June 2-6. Dr. Frank K. Boland read a paper entitled *The Treatment of Hernia,* discussed by Dr. Ira A. Ferguson; Dr. J. K. Fancher, *Calcium Metabolism,* discussed by Dr. George L. Lewis.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. Abercrombie, M.D., *Director*

STATE FACILITIES AS AN AID IN THE INSTRUCTION OF MEDICAL STUDENTS IN PUBLIC HEALTH

The teaching of Public Health in schools of medicine is comparatively recent. Even yet, largely because of overcrowded curricula, few schools are able to offer their students practical work and observations in the "field"—a type of instruction entirely essential for an understanding of health problems, especially those existing in rural areas.

The Department of Public Health of the University of Georgia School of Medicine and the Georgia State Health Department have participated in a plan whereby students who have completed the third year of medicine, and choose to do so, may be assigned to county health units during three summer months. A small stipend is paid for services rendered. This plan of instruction has been given scrutiny by the Rockefeller Foundation, and this year six fellowships have been offered to selected students who desired this experience.

The value of such training may be expected to be: (1) An intimate contact and insight into the rural and small-town health problems of Georgia; (2) a type of medical experience that the medical school itself is unable to give; (3) serve as a preliminary background for those who later may choose to enter public health as a profession; (4) a better understanding of the functions and difficulties of organized health agencies—state, county and lay—will make for a closer cooperation with such agencies when the student eventually enters private practice.

The potentialities of such a plan appear to be very great, and schools in other states may profit by availing themselves of the wide range of opportunities afforded by their respective state health departments, in a type of medical training which can be had in no other way. The students of Georgia are indeed fortunate in the far-sighted vision of its State Department of Health.

Everett S. Sanderson, M.D.,
Professor of Public Health,
University of Georgia School of Medicine,
Augusta.

NEWS ITEMS

The United States Civil Service Commission, Washington, D. C., announces that the drive for nurses will continue with two new civil service examinations, namely: Junior Graduate Nurse (Annct. No. 88) and Public Health Nursing Consultant (Annct. No. 85). Write the Commisison if interested.

Dr. W. C. Waters and Dr. A. Park McGinty announce the removal of their offices to 762 Cypress Street, N. E., Atlanta. Practice limited to internal medicine.

Dr. F. C. Nesbit, with offices in the Candler Building, Atlanta, for many years, has moved to Covington and will continue the practice of medicine there.

The Bibb County Medical Society met in Ridley Hall, Macon, July 1. The program consisted of Unveiling Exercises of the Portrait of Edward Ambrose Baber, M.D., 1793-1846.

If interested in a location to practice medicine, write the Secretary-Treasurer.

The Sixth District Medical Society met at Sparta, June 26. Titles of papers on the scientific program consisted of *The Child Health Demonstration Clinic* by Dr. I. H. Moore, Sparta; *Georgia's Child Health Demonstration*, Dr. T. F. Abercrombie, Atlanta, discussed by Dr. C. S. Jernigan, Sparta; *Georgia's Nutritional Problems*, Dr. V. P. Sydenstricker, Augusta, discussed by Dr. Hal M. Davison, Atlanta; *Addresses* by Dr. Allen H. Bunce, Atlanta; Dr. J. A. Redfearn, Albany, and Dr. Edgar D. Shanks, Atlanta, president, president-elect and secretary-treasurer, respectively.

The John and Mary R. Markle Foundation, New York City, has made a grant of $5,000 to supplement the one for $6,000 made last year for research work in nutritional diseases under the direction of Dr. V. P. Sydenstricker, professor of medicine.

Dr. Clifton G. Kemper announces his association in the practice of medicine with Dr. Henry W. Minor with offices at 157 Forrest Avenue, N. E., Atlanta.

The Fulton County Medical Society, Atlanta, met on July 21. Speakers on the program included Dr. Linton Smith, Dr. Trimble Johnson, Dr. A. A. Rayle, Dr. I. L. Greenberg, and Dr. Clarence Laws.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
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131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

EDUCATION IN PUBLIC HEALTH NURSING

ELSIE CROSBY, R.N.
Atlanta

Associate Director, Division of Public Health Nursing
Georgia Department of Public Health

Basic training as now usually given in hospital schools of nursing in this country, unsupplemented by additional educational opportunity, does not prepare the graduate nurse for the field of public health. The nurse who comes from the hospital unawakened to the medico-social problems which underline physical disability and sickness cannot, however well trained she is in bedside care, do effective health teaching. Abundant evidence of this was found by the Goldmark survey. However good her clinical training, however accurate her knowledge of disease and even of prevention, a nurse is at a grave disadvantage, if not totally at a loss, without a thorough grounding in the principles of teaching and in the principles of social case work. It was found that without the first, the nurse's personal service may be totally inadequate to effect a cure or to improve injurious conditions and without the second, she is necessarily halting and uncertain in her work with families.

Special preparation of nurses for the public health field is now required by most official agencies. In the State of California special training in public health nursing is mandatory by law for employment in the state public health nursing service.

There are at present twenty-six colleges endorsed by the National Organization for Public Health Nurses offering post-graduate courses in public health nursing to the graduate nurse. These are located in a wide geographical area and offer various forms of educational opportunity. The program of post-graduate instruction is part of the combined academic and advanced professional curriculum leading to the degree of bachelor of science. For this reason the graduate nurse desiring to matriculate in one of these courses must meet both academic and professional requirements, which are:

1. Completion of a full course of study in an accredited secondary school.
2. Graduation from a school of nursing of approved standards. This school of nursing should have a minimum of 100 patients per day or 50 patients per day with adequate affiliations in such services as obstetrics, pediatrics, and communicable diseases.
3. Registration as a graduate nurse in one or more states.

The program of intramural instruction includes both academic and advanced professional subjects. The required academic subjects are biology, sociology, psychology and English, both oral and written. The required professional subjects are:

1. Principles of public health nursing.
2. Preventive Medicine and Public Health Administration.
3. Mental Health.
4. Nutrition in Health.
5. Principles and Methods of Health Teaching.
6. Principles and Practices of Family Social Work.

The distinguishing functions of a public health nurse are to teach habits of healthful living in the home, see to it that the physician's instructions are intelligently carried out and to be on the alert for all that is suspicious or divergent from health. Throughout the entire course of instruction in public health nursing emphasis is placed upon the importance of her function as a teacher.

Following intramural instruction at a college, students are assigned to county health departments designated as training centers, where they can obtain practice and acquire some degree of skill in nursing procedures in the field of public health nursing. Conditions set by the college for accrediting the fields are:

1. A county or district health department offering a well-rounded health program whose personnel meet the minimum qualifications for their various types of work.
2. At least one whole time educational director responsibile for the student program and eligible for faculty appointment in a college recognized as extension teacher.
3. The number of students assigned to the field at any one time should not exceed the number of staff nurses employed by the health department.
4. The students' experience to include both observational and actual participation in all phases of the health program.
5. Conferences on students' experience between the faculty of the university and the supervising staff of the training field.

These conditions were met by three counties, Thomas, Tift and Fulton, in the State of Georgia, and are now being used by George Peabody College as accredited training fields. To date sixty-six nurses working in counties of the State have been students in these training centers.

WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.

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ANNUAL REPORT TO THE HOUSE OF DELEGATES

Mrs. H. G. Banister
Ila

During the seventeenth year the Woman's Auxiliary to the Medical Association of Georgia has endeavored to serve not only the medical profession, but humanity, our theme for the year being, Know—Serve—Grow.

Each year the Auxiliary is guided by an Advisory Committee, appointed by the President of the Medical Association of Georgia. At the call of the Chairman of the Advisory Committee, the Executive Board met in Atlatna on July 9, 1940, with the Advisory Committee. At this time the Auxiliary program for 1940-41 was presented and approved. The program was sent to the entire membership, to the officers of the Southern and American Medical Auxiliaries; also copies were sent to other State Presidents. The program was published in the State Medical Journal and in the *Atlanta Constitution.*

Despite the disruptions due to many of the doctors being called into military services, our organization program has gone forward. Four new counties: Grady, Gwinnett, Gordon and Cobb, have been organized and one new district, the Seventh, has been organized. There are 33 county organizations representing 48 counties. The membership is now 648. Out of this number 17 were members in arrears and 5 members at large. This reduction in organized counties from last year has been partially due to the combining of counties and the removals caused by the call to military duty of the doctors, also members at large joining organized county auxiliaries.

A conference was called in Atlanta in May by the President of the Woman's Auxiliary, for the purpose of discussing the problems of health in Georgia, and to formulate plans for a health education program, which include the activities of the health education, health films and public relations chairmen. Those attending the conference were the President and Secretary-Treasurer, the Chairman and four members of the Advisory Committee from the Medical Association, the Director of Health Education, State Department of Public Health; the Chairmen of Health Education, Public Relations, and Health Films; also the President-Elect of the Woman's Auxiliary to the Medical Association of Georgia. Dr. W. W. Bauer, Director of the Bureau of Health Education of the American Medical Association, was guest speaker. He presented instructive suggestions for the health education program in Georgia. The President and the Advisory Committee from the Medical Association of Georgia decided that special emphasis in our health education program should be placed on nutrition.

Health education meetings have been held throughout the State on nutrition, with doctors as speakers on the subject. The Auxiliaries have distributed 58,400 copies of health literature on nutrition, appendicitis, dental health, heart disease, tuberculosis, typhoid fever, smallpox and diphtheria. The literature was secured from the State Department of Public Health and the Medical Association of Georgia. Members are urged to hold chairmanships of health in other organizations, also to serve on health committees. A list of doctors' wives in each organized county to serve in their respective county on a County Steering Committee in connection with the State Nutrition Council was sent to the Chairman of the State Nutrition Council. There are 117 Auxiliary members serving on committees in other organizations. There have been 34 radio broadcasts on health and 87 health films shown to schools, Parent-Teacher meetings, County Fairs, American Legions, Federated Women's Clubs, etc. They were shown to approximately 9,200 people. The Auxiliaries have contributed $24.00 to the health film fund.

Health educational projects have been sponsored by the County Auxiliaries, such as nutritional conferences and demonstrations; Health Educational Booth at the Southeastern Fair, Health Literature Filing and Lending Bureau, planning and presenting a Mental Hygiene Panel for P.-T. A. (As an outgrowth of this panel discussion requests were received for its repetition at four other meetings). One Auxiliary reported having secured copies of "Priceless Heritage" for public distribution. The Auxiliaries have

President of the Woman's Auxiliary to the Medical Association of Georgia.

Annual report submitted by the President to the House of Delegates, Macon, May 13, 1941.

sponsored 150 public relation meetings on health education in other organizations. Some counties report surveys of women's health interest as an aid to the American Medical Association to plan radio programs of usefulness to listeners. All members of the Executive Board of the Auxiliary are receiving Georgia's Health Publication of the State Department of Health.

Doctors' Day was commemorated in many ways, such as banquets, picnics, dances, radio talks, and articles printed in the newspapers. A whole section of the *Atlanta Constitution* paid tribute to the doctors. Personal notes of appreciation, flowers for doctors' offices, also flowers and cards were sent to physicians who were ill. Flowers were placed on the graves of the deceased physicians.

Programs on Jane Todd Crawford were held in many of the Auxiliaries. The Chairman of Research in the Romance of Medicine has obtained very interesting historical data about medical practice in Georgia and the achievement of those doctors who have blazed the trail toward better health for different communities in Georgia. The history and scrapbook of the Auxiliary have been kept up-to-date. The "Brawner Trophy" has stimulated Auxiliaries and promoted growth in Auxiliary activities. The Bonar White Exhibit and Scrapbook Awards will be awarded for the second time this year for the best exhibit at the convention showing Auxiliary Objectives and work during the year. The chairman of Archives has on file many interesting Auxiliary papers.

Baldwin County reports 78 subscriptions to *Hygeia* and repeated their success of last year by winning again this year's National Prize of $25.00. The *Hygeia* subscriptions have increased this year. Auxiliaries reporting 254 subscriptions, of which 70 were given to schools. There were 19 subscriptions to the national bulletin.

At the end of last year the balance on hand of the Student Loan Fund amounted to $2,079.51. The Auxiliary contributions of $204.00 and $368.00 payments on loans, plus $28.21 interest this year, increased the fund to $2,679.72. This year three students have participated in loans from this fund. Total amount of loans made to students amounted to $1,114.00, leaving a balance on hand of $1,565.72.

Through the Auxiliaries community health projects and various kinds of philanthropic activities are being promoted, such as hot school lunch programs, examination of school children, child welfare clinics, immunization projects, dental clinics, also well baby clinics, cancer, Red Cross, girls' and boys' Scout drives, sale of T. B. seals, summer round-up, Red Cross sewing rooms, children's play ground, contributions to children's wards in hospitals, books and magazines to community centers, contribution to the iron lung fund, infantile paralysis fund and the empty stocking fund. One Auxiliary helped to raise $523.25 to aid the needy, sponsored talks by doctors on appendicitis in local high schools, contributed to the British War Relief Fund, workers for the blind, and equipping a hospital clinic.

The Woman's Auxiliary was called upon to assist the Medical Preparedness Committee of the Medical Association of Georgia by sending out letters to all county presidents urging their aid in contacting the chairman in each local medical society in urging all of the doctors to fill out and return the questionnaires sent them by the American Medical Association. The Auxiliary cooperated with the Committee to Reduce the Mortality of Appendicitis in Georgia, by talks to high school students; also sponsored talks by doctors on the subject of appendicitis, and distributed 30,100 leaflets on appendicitis to high school students, P.-T. A., Federated Clubs, etc. The state chairman of Public Health in the Federation of Women's Clubs of Georgia, a doctor's wife, was contacted and asked to include in her program this most worthwhile project. As a result the program was received with much enthusiasm and request for literature was sent to Dr. T. C. Davison, chairman of the Committee to Reduce the Mortality Rate of Appendicitis in Georgia, who in turn sent appendicitis leaflets to be distributed to the Federation of Women's Clubs throughout the State.

The Woman's Auxiliary was represented at the Eighteenth Annual Convention of the Woman's Auxiliary to the American Medical Association, held in New York June 10-14, 1940, by the President, the immediate Past-President and two delegates. Mrs. Eustace A. Allen, of Atlanta, was elected Third Vice-President of the Woman's Auxiliary to the American Medical Association. She is now chairman of organization for the Southern states.

This year in our program we have been trying to establish the need for teacher training in health education as a requisite for teacher certification in Georgia. The President and President-Elect are serving on a state advisory committee of the health education committee, which is composed of school people working on a program for health education in the public schools of Georgia. Contacts have been made with school people who are in authority concerning teacher training in health education. This summer courses in health education will be offered in all the state schools and notices have been sent to all superintendents of the public schools in Georgia urging them to have teachers to take the course, who plan to attend summer school.

As State President it has been a privilege to serve as a member of the Executive Board of the Women's Field Army for the Control of Cancer, represent the Auxiliary at the following

meetings: Georgia Dietetic Association, Georgia Public Health Association and four conferences of the State Nutrition Council to assist in the strengthening of National Defense, serve on the State School Lunch Committee, also the Public Health Committee of the State Nutrition Council. Representatives from all organizations in the State are members of the Nutrition Council.

During the year 25 Auxiliary meetings have been attended by the President and talks were given at each meeting, also talks given to school groups, P.-T. A., and Federated Women's Clubs on health. There were 300 mimeographed copies distributed to Auxiliary members at the District and County meetings of the following talks: Inaugural Address by National President, Mrs. V. E. Holcombe; talk given by Doctor Nathan Van Etten, President of the American Medical Association, to the Woman's Auxiliary at the National Convention in New York; the Auxiliary as a Liaison Between the Medical Association and Lay Organization, by Dr. J. C. Patterson, President of the Medical Association of Georgia; The Doctor's Wife, by Rock Sleyster, M.D. In addition to mailing of the Objectives, 950 form letters, 486 personal letters and 150 cards were mailed during the year.

This year of steady progress and widening service of our Auxiliary membership has been made possible by the constructive cooperation of the President of the Medical Association of Georgia, the Advisory Committee and Secretary-Treasurer of the Medical Association of Georgia and the State Department of Public Health. In behalf of the Woman's Auxiliary it is my privilege to say—We thank you. It has been an honor to serve as President of an organization which is auxiliary to the medical profession, which in turn is coextensive with life.

NEWS ITEMS

Atlanta physicians who attended a national defense conference of the Radiological Society of North America in San Francisco, were: Doctors James J. Clark, William P. Baker, William P. Elkin, William F. Lake and Jackson W. Landham.

Dr. Frank K. Boland, Atlanta, has been elected president of the Emory Alumni Association; Dr. A. J. Merrill, Atlanta, first vice president of the Emory Medical Alumni Association.

Dr. Fred Crenshaw, Alto, was host to the members of the Habersham County Medical Society and the Woman's Auxiliary in his home on June 12.

Dr. D. H. Garrison, Clarkesville, has been appointed Vice Councilor for the Ninth District; Dr. J. Victor Roule, Augusta, Vice Councilor for the Tenth District.

OBITUARY

Dr. Pleasant Henry Askew, Jr., Nashville; member; University of Georgia School of Medicine, Augusta, 1934; aged 31; died suddenly May 31, 1941, in an automobile accident. He was born and reared in Nashville. Received his literary collegiate education at Mercer University, Macon. Dr. Askew served his internship at the Jackson Memorial Hospital, Miami, Fla. He was past president of the Berrien County Civic Club, president of the United Banking Company, member of the F. & A. M., and Shrine. Dr. Askew was executor and co-owner of his father's estate which included among other things Hotel Nashville, tobacco warehouses and the Askew Memorial Hospital. Surviving him are his widow, two sisters, Mrs. Clarice Hendricks, Nashville, and Mrs. Ina Hancock, Athens. Funeral services were conducted at the Nashville Methodist church with the Nashville Masonic Lodge in charge.

Dr. Joseph Warren Bailey, Rossville; St. Louis College of Physicians and Surgeons, St. Louis, Mo., 1901; aged 76; died May 18, 1941, at a private hospital in Chattanooga, Tenn. For many years he was a successful practitioner in Walker County and held in high esteem by many friends. He was a useful citizen. Surviving him are his widow, two daughters, Mrs. Flora McBrien and Mrs. Jack Webb, both of Detroit, Mich.; one son, J. W. Bailey, Jr., Flint, Mich.

Dr. Robert Irvine Bryson, Augusta; member; University of Georgia School of Medicine, Augusta, 1909; aged 55; died suddenly June 4, 1941, at his home. He was born and reared in Augusta. Dr. Bryson was a graduate of Sacred Heart College. He was loyal to every trust and never spared time and energy to do whatever might be necessary for his patients. Dr. Bryson was a member of the faculty of the University of Georgia School of Medicine where he taught dermatology. Surviving him are his widow, one son, E. Hampton Bryson, three brothers and two sisters. Dr. Robert L. Armor and Dr. Richard Wilkerson officiated at the funeral services. Interment was in Magnolia cemetery. Members of the Richmond County Medical Society were honorary pallbearers.

Dr. James Richard Clements, Pelham; member; Atlanta College of Physicians and Surgeons, Atlanta, 1901; aged 65; died May 24, 1941, after a long illness. He was a native of Crisp County. Dr. Clements was active in organizing the Mitchell County Board of Health with the services of a nurse and physician. He served in the city council of Pelham, one time mayor and for many years a member of the Board of Education. Dr. Clements was a member of the Mitchell County Medical Society and the First Baptist Church. Surviving him are his widow and four sisters. Rev. E. R. Eller and Rev. E. J. Grimes officiated at the funeral services conducted at the residence. Members of the Mitchell County Medical Society were honorary pallbearers.

Dr. James Hiram Hasty, Atlanta; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1908; aged 61; died June 6, 1941, in a private hospital. He was a native of Cherokee County. After he graduated in medicine, he practiced for two years in Oklahoma, then in several Georgia cities, then practiced 18 years in Atlanta before he retired. Surviving him are his widow, five daughters: Mrs. R. L. Burroughs, Mrs. H. J. Buice, Mrs. J. D. Jordan, Miss Edna Hasty and Miss Mattie Lou Hasty; one son, James H. Hasty, Jr., all of Atlanta.

Dr. Hugh McCulloh, Sr., West Point; member; Emory University School of Medicine, Atlanta, 1895; aged 68; died on June 2, 1941, at his home after an illness of several months' duration. He was a native of McCulloh, Ala. Dr. McCulloh was dean of the medical fraternity in that section and had practiced medicine at West Point and surrounding territory for 43 years. He was a distinguished citizen and a leader in that community. He was a member of the Troup County Medical Society, Rotary Club and the First Methodist Church. Surviving him are one daughter, Mrs. Laura O'Neal, West Point; and one son, Dr. Hugh McCulloh, Jr., West Point. Rev. W. M. Twiggs, Rev. John W. Faulkner and Rev. S. P. Spiegal officiated at the funeral services conducted at the West Point First Methodist Church

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Dr. Richard Franklin Slaughter, Augusta; member; University of Virginia Department of Medicine, Charlottesville, Va., 1930; aged 35; died July 4, 1941, at Johns Hopkins Hospital, Baltimore, Md. He was a native of Hampton, Va. Dr. Slaughter had served on the staffs of hospitals in Baltimore, Boston, Richmond and Norfolk, Va. For four years prior to his death, he was Professor of Neurosurgery at the University of Georgia School of Medicine, Augusta. He was held in high esteem by hundreds of friends, and was a valuable citizen, practitioner and teacher. Surviving him are his father and mother, Mr. and Mrs. R. F. Slaughter, Sr., his widow; two sons, Richard Franklin Slaughter III, and Graham Slaughter, both of Baltimore; one brother, Aubrey Slaughter, Hampton, Va.; two sisters, Mrs. A. B. Conner, Hampton, Va., and Mrs. J. C. Clark, Cleveland, Ohio. Funeral services were conducted at Hampton, Va. Interment was in the city cemetery.

BOOK REVIEW

Textbook of Pediatrics. By J. P. Crozier Griffith, M.D., Ph.D., Emeritus Professor of Pediatrics in the University of Pennsylvania; Consulting Physician to the Children's Hospital, Philadelphia; Consulting Physician to St. Christopher's Hospital for Children; Consulting Pediatrist to the Woman's, the Jewish, and the Misericordia Hospitals, etc.; Corresponding Member of the Societe de Pediatrie de Paris; and A. Graeme Mitchell, M.D.; B. K. Rachford, Professor of Pediatrics, College of Medicine, University of Cincinnati; Medical Director and Chief of Staff of the Children's Hospital of Cincinnati; Director of the Children's Hospital Research Foundation; Director of Pediatric and Contagious Services in the Cincinnati General Hospital. Third Edition. Revised and Reset. 991 pages, with 220 illustrations. Price, $10. Philadelphia and London, W. B. Saunders Company, 1941.

This is a revision and rewriting of the authors' book "Diseases of Infants and Children," and they have chosen the title "Textbook of Pediatrics" because of even more emphasis on normalcy of children's health and development, and the prevention of disease, for pediatrics covers much besides actual disease.

It is indeed a splendid textbook of pediatrics, good for the student, practitioner and specialist. It is up-to-date and covers the field well, but is not so lengthy and detailed as to be overloaded. Its idea is to be practical and usable, and the authors have done a good job.

The first division is devoted to general subjects of growth and development, hygiene, feeding, characteristics of diseases in infants and children, and diagnosis and treatment in pediatrics. Then come the specific diseases, and finally the various systems are taken up in logical manner. The whole arrangement and presentation are excellent, so that the book is well adapted to both study and reference. There are numerous informative illustrations, many in color.

All of this, however, is in the "category of the usual," according to the preface. What is unusual about the book is the manner in which the authors have drawn in numerous outside authorities in consultation on special subjects. They have not used the multiple author system, but have written the whole book themselves for the purpose of uniformity. Then various special subjects and chapters have been referred to various authorities on these subjects, who have criticized and advised. This to our mind is an ideal solution to the problem, for it secures all the necessary information and supplies it to the reader in the style of the authors of the whole book.

We predict that this style of textbook writing will gain more favor, and we commend this book for taking advantage of the system.

WILLIAM E. GOODYEAR, M.D.

ANY PHYSICIAN MAY EXHIBIT "WHEN BOBBY GOES TO SCHOOL" TO THE PUBLIC

Under the rules laid down by the American Academy of Pediatrics, their new educational-to-the-public film, "When Bobby Goes to School," may be exhibited to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film.

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The disadvantages and hazards of the temporary passive immunity induced by tetanus antitoxin are well known. A prolonged active immunity may now be safely and satisfactorily produced by tetanus toxoid. Several million soldiers in France, England, Canada, and Italy have received active immunization during the past four years and to date no case of tetanus has been reported (Mil. Surgeon, 88:371, 1941).

It is generally accepted that alum-precipitated tetanus toxoid is a much more efficient antigen than plain toxoid. Once an individual has received immunization, a stimulating or booster dose at any subsequent time will markedly accelerate the serum antitoxin to a level which will definitely protect from tetanus. Tetanus toxoid is supplied by Eli Lilly and Company in the alum-precipitated form.

THE TRUE ECONOMY OF DEXTRI-MALTOSE

It is interesting to note that a fair average of the length of time an infant receives Dextri-Maltose is five months: That these five months are the most critical of the baby's life: That the difference in cost to the mother between Dextri-Maltose and common sugars is about $7 for this entire period—a few cents a day: That, in the end, it costs the mother less to employ regular medical attendance for her baby than to attempt to do her own feeding, which in numerous cases leads to a seriously sick baby eventually requiring the most costly medical attendance.

SULFAGUANIDINE, NEW SULFONAMIDE DERIVATIVE, IS RELEASED BY SQUIBB

Sulfaguanidine, the new sulfonamide compound which clinical trial indicates may be of great usefulness in certain diseases of the gastrointestinal tract, has been released for sale by E. R. Squibb & Sons, New York. It is supplied in 0.5 gram tablets, in bottles of 50, 100 and 1,000, and as a powder in 4-ounce and one-pound bottles; also in 3.5 gram envelopes in packages of 12.

Sulfaguanidine is distinguished from other sulfonamide derivatives by its low absorbability. This causes it to remain in the intestinal tract and exert its antibacterial influence therein. Consequently, it is useful in enteric infections, such as acute bacillary dysentery, and also as a preoperative and postoperative measure in surgery of the lower intestinal tract.

Like the other sulfonamides, Sulfaguanidine has high anti-bacterial activity. Unlike them, and in spite of its relative solubility in water, it diffuses to a much less extent through the intestinal wall. It is, therefore, possible to obtain a relatively high effective concentration of the drug in the intestine itself (200 mg. per cent) with little penetration into the circulation and consequent systemic effects (1 to 4 mg. per cent concentration in the blood).

A tasteless drug, Sulfaguanidine is administered either in tablet form or as powder in water or similar medium. Rather large doses appear to be required; even for children, but the total period of treatment should not exceed 14 days. Recommended dosage and methods of administration are described in the Squibb leaflet on Sulfaguanidine.

SURGICAL MASKS AND CAPS

The Holland-Rantos Company have been appointed exclusive distributors for Rantex, the newest development for surgical masks and caps—a patented fibre product which is insoluble in live stream, boiling water or common solvents. A magnification of Rantex shows that it is 176 times more protective than a single layer of gauze. As a result, it provides masks and caps which are exceptionally cool, comfortable, light and free from irritating lint or yarn. They are inexpensive enough to be discarded after a single use; yet they can be autoclaved or sterilized.

The masks are shaped to fit the face; the caps are well tailored. The masks and caps are already being used in many hospitals—including Doctors Hospital in New York, University of Pennsylvania Graduate Hospital in Philadelphia, United States Marine Hospital in Boston, Wisconsin General Hospital, University of Wisconsin in Madison, Wis., and the East Oakland Hospital in Oakland, Calif.

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BILIARY OBSTRUCTION COMPLICATING HEMORRHAGIC DISEASE OF THE NEWBORN

J. T. Leslie, M.D.
Kenneth S. Hunt, M.D.
Griffin

This paper does not present any new theories as to the etiology or treatment of hemorrhagic disease of the newborn, but is intended to review the condition and to present an unusual case.

Hemorrhagic disease of the newborn is a self-limited clinical syndrome characterized by the occurrence, in the first week of life, of hemorrhages without obvious cause. Bleeding may occur from the umbilicus, skin, mucous membranes or any of the internal organs.

The incidence of this condition is difficult to determine due to conflicting reports and to the fact that many reports include other hemorrhagic conditions as well. Sanford and Leslie[1] report 2 cases out of 5,500 births, whereas Javert[2] reports 72 cases out of 11,303 births. Other reports[3] cite the incidence as high as 3.2 per cent. It is said to occur in both sexes with almost equal frequency.[4]

The cause of the hemorrhagic condition is still not definitely determined. The blood coagulation time and the bleeding time are prolonged thus, obviously, there must be some dysfunction of the clotting mechanism of the blood. Various theories have been proposed to account for this dysfunction. Thrombin deficiency, fibrinogen deficiency, vitamin deficiency, increased platelet resistance, sepsis, hemophilia, cerebral hemorrhage and perhaps many other conditions have been suggested, but the one which seems most plausible at the present is prothrombin deficiency. Waddell and Guerry,[5] in studies made recently on newborn infants during the first week of life found a very close relationship between the clotting time and the prothrombin content of the blood, namely, that as the prothrombin decreased, the clotting time increased and vice versa, which may well explain the high clotting time of the blood in hemorrhagic disease of the newborn. They found prothrombin deficiency common in the newborn period and the deficiency most marked at from 48 hours to 72 hours. However, they found that after the fifth day the prothrombin tended to reach a normal level. These facts strongly suggest a relationship between hemorrhagic disease of the newborn and the prothrombin content of the blood, in that hemorrhagic disease usually occurs on the third or fourth day but rarely after the fifth day of life, the time at which the prothrombin tended to reach a normal level.

The pathology of this condition is simply hemorrhages and anemia of the tissues.

Hemorrhage is the outstanding symptom and is usually noted on the third or fourth day, but rarely as early as the first or later than the fifth. However, Javert[2] states that often trauma to the ankles caused by holding the infant at this point may produce the first petechiae and suggests that these should be looked for at the time of birth. Bleeding may occur from any part of the body, including the internal organs, and is usually multiple. Clark's report[7] is fairly representative of the sites of hemorrhage. In his 50 cases bleeding occurred in the following order of frequency: bloody vomitus, from the umbilicus, rectum, skin punctures, other skin trauma, no external hemorrhage, nostril, blood in spinal fluid, mouth, blood in urine, marked cephalohematoma, circum-

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cision wound, and vagina (in conjunction with other places).

The bleeding is usually more of an ooze than active hemorrhage but as this continues with its resultant anemia the infant becomes weaker until the bleeding stops or death occurs. As infants tolerate blood loss poorly, a relatively small hemorrhage may produce shock. Temperature up to 104 degrees or more may be present without any other condition to account for it or there may be a subnormal temperature. Atelectasis, increased intracranial pressure or other complications may be present.

The blood shows a variable degree of anemia and leukocytosis but almost invariably an increased coagulation time and bleeding time. The coagulation time usually exceeds ten minutes and the bleeding time ordinarily is somewhat less than, but may exceed, the coagulation time. The platelets may be slightly decreased.

In the diagnosis several conditions must be considered. Bloody vomitus as a result of cracked nipples or a mouth injury must be ruled out. Many newborns occasionally pass small amounts of blood in the stools during the first few days without being pathologic. Some babies have a blood tinged vaginal discharge without being diseased. Sepsis may produce the hemorrhagic tendency but usually there is some obvious focus of infection or other symptoms suggesting this condition. Icterus gravis and familial jaundice may have a hemorrhagic tendency but here the blood picture is different. Congenital syphilis may give a confusing picture even to the point of prolonged coagulation and bleeding times but the family history and mother's blood test are helpful and x-ray will usually show characteristic epiphysial changes and periostitis at this stage.

The diagnosis depends on the presence of hemorrhage with an increase in the coagulation and bleeding times.

The prognosis depends largely on the source of hemorrhage and the treatment. The mortality rate ranges from 50 to 84 per cent if blood therapy is not instituted.[2] With blood therapy the mortality rate should approach zero but different reports cite it from 6 to about 40 per cent.[2, 3, 6] The quicker therapy is instituted, naturally the lower the mortality. Of course, hemorrhage into the brain, lungs, adrenals and body cavities carry the highest mortality.

In considering the prophylaxis of hemorrhagic disease, Kugelmass and Tritsch[7] emphasize the importance of a high protein diet during the prenatal period, especially for those mothers who show any hemorrhagic tendency such as recurrent nosebleeds or easy bruising.

Recently vitamin K has entered the picture and offers new possibilities in the prophylaxis and treatment of hemorrhagic disease of the newborn. Shettles, et al, gave five women vitamin K orally each day for varying lengths of time during the last month of pregnancy. They found this to raise the maternal prothrombin level appreciably and the infants' prothrombin levels approximately three times those of infants whose mothers had not received the medication. Tests on the infants' blood during the first ten days of life showed that the high levels were maintained with only slight decline. They also state that large doses of vitamin K given mothers within 24 hours of delivery are able to produce similar results, and that the vitamin can be given to infants after birth, producing a steady rise in prothrombin. In a comparison of the prothrombin values for 10 control infants and for 10 infants treated with vitamin K Waddell and Guerry[5] found that no unusually low values were observed and no unusual daily variations were noted in the vitamin K group and concluded that apparently vitamin K will markedly increase the prothrombin in the first few days of life and maintain it at a safe level. In one case of hemorrhagic disease they administered vitamin K by mouth and found that it promptly stopped all bleeding and increased the prothrombin to a safe and normal level.

Whether or not this new vitamin therapy works out remains to be seen but until it does the specific treatment consists in the injection of human blood as soon as the diagnosis is made. Much has been written regarding the intramuscular injection but

Sanford and Leslie[1] state that from the study of the effect of small intramuscular injections of parents' blood in the normal newborn there was no evidence of any kind to indicate that it had any action in lessening the coagulation time and are of the opinion that infants who recover following small injections of whole blood intramuscularly would recover spontaneously.

The intravenous injection is dramatic in that the hemorrhage stops almost instantaneously and the critically ill infant begins to improve immediately. Of course, the blood must be properly matched as in any other transfusion. Generally 10 cc. of citrated blood per pound of body weight is sufficient and rarely more than one transfusion is required. Any satisfactory donor is acceptable but usually either the father or mother is selected because in an emergency the Wassermann does not have to be considered as seriously as when a stranger is the doner. However, it is well to check this.

If facilities are not available for giving intravenous blood, then it should be given intramuscularly or intraperitoneally, even though the results are not expected to be so good. In this case it is not necessary to match the blood. Twenty cubic centimeters or more should be given and repeated if necessary.

The infant should not be put to the breast but should be kept as quiet as possible. Breast milk is the food of choice but in its absence a formula of high protein content should be chosen and given by dropper if necessary until the infant has improved sufficiently to resume the normal regime.

Other than the specific treatment, therapy is actually symptomatic unless complications arise and these must be handled as they occur.

Report of Case

This baby was a full term, white male weighing six pounds thirteen ounces, delivered spontaneously by one of us (K. S. H.) after a relatively short labor on June 28, 1939. This was the second child and the family history was negative. At birth the baby was moderately cyanotic and required alpha lobelin 1 cc. and oxygen-carbon dioxide inhalations before respiration was satisfactory. There was a bluish tint of the lower half of the face and similar large spots behind the neck and on the hands and feet, whereas the remainder of the skin had a good pink color. After the first day he nursed well and seemed to be doing fine. However, the bluish areas of the skin remained. On the third day circumcision was done. The baby went home from the hospital on the fourth day, slight jaundice being noted at this time.

On the fifth and sixth days there was slight bleeding from the circumcision wound, but this was stopped by the application of adrenalin. Later on the sixth day the baby suddenly stopped taking everything by mouth and was said to have periods of incessant crying alternating with periods of profound sleep and also slight twitchings of the extremities. He became weaker and temperature of 101.2 degrees was noted. At this time blood examination showed w.b.c., 6,250; r.b.c, 6,800,000; polymorphonuclears, 68 per cent; lymphocytes, 32 per cent; smear essentially negative; coagulation time 3½ minutes; and bleeding time 5 minutes. The baby refused to nurse and had several twitching attacks associated with cyanosis during the night so he was readmitted to the hospital on the seventh day.

At this time the temperature was 103, the skin was pale, moderately jaundiced and rather dry with the bluish spots still present on the extremities but less pronounced on the face. There was moderate dehydration but the anterior fontanel was slightly tense. The baby was listless and appeared very ill. He was given oxygen inhalations and 50 cc. of normal saline solution subcutaneously. During the day he had several twitching spells but no generalized convulsions. Calcium gluconate 7½ grains was given intramuscularly.

The following day there was marked oozing of blood from the circumcision wound, from the sites of injections and a little blood in the stool. The baby was cyanotic, breathing rapidly, and could hardly be aroused. At this time the w.b.c. were 56,000; r.b.c. 1,660,000; hemoglobin, 30 per cent; polymorphonuclears 82 per cent; lymphocytes 18 per cent; coagulation time 8 minutes, and bleeding time well over thirty minutes. Ten cubic centimeters of whole blood from the father was injected intramuscularly and 50 cc. of normal saline solution subcutaneously. Several hours later, when a donor was obtained, a transfusion was given. Due to technical difficulty only 15 cc. of citrated blood were given intravenously, but by the time this was done it was noted that all oozing had ceased, so no further attempt to get in the vein was made, but another 10 cc. were given intramuscularly.

The baby improved rapidly and the next day his temperature was normal and he was taking one and a half ounces of his formula every three hours. At this time a soft systolic murmur was noted over the precordium, louder at the second left interspace, and jaundice had become somewhat more pronounced.

During the next few days the jaundice became more intense and on the fifteenth day of life stools were noted to be clay-colored and the urine dark. Chemical examination showed absence of bile in the stool and its presence in the urine. Another transfusion of 50 cc. of citrated blood was given, following which the blood picture was: w.b.c., 9,100; r.b.c., 4,710,000 and hemoglobin, 60 per cent. The baby was markedly improved

generally as evidenced by eager nursing and general well being, except for very pronounced jaundice. Small doses of calomel were given several times and nitroglycerine twice without any improvement.

The jaundice progressed to the point that there was a decided greenish tint, the liver was slightly enlarged and the spleen palpable, but despite this the baby was taking his formula, orange juice and cod liver oil well and gaining weight slowly, so he was discharged from the hospital on his twenty-third day of life. By this time the bluish spots had disappeared from the skin completely and no cardiac murmur was heard.

At home he continued to gain slowly but it was not until his forth-ninth day of life that a stool showed a trace of bile. Shortly after this the jaundice began to subside and the stools took on color. The skin soon cleared and the infant, now ten months of age, is normal as far as examination can determine.

Comment

In reviewing this case it is seen that the ecchymotic areas noted at the time of birth gave a lead to the diagnosis. The next lead was hemorrhage from the circumcision wound, but without prolonged coagulation and bleeding times this was not clear. However, Clarke[6] has noticed that blood from a dehydrated infant would clot unusually quickly, which may be a factor in this case, since the coagulation time was prolonged after parenteral fluids were administered.

Adrenal hemorrhage was considered and may well have occurred as can be seen from the comparison of this case with one of adrenal hemorrhage in a four day old infant reported by Phillips.[9] "Upon examination the first impression was of an acutely ill infant. The infant seemed unusually drowsy, refused to nurse the breast or the bottle consistently. The color was a greyish pallor. He had been running fever 99.8 degrees from the first day of birth. The respirations were very shallow and extremely rapid in rate with periods of apnea. Occasionally he seemed to rouse from his drowsy state and begin to switch convulsively, at the same time emitting a piercing shriek. . . ."

Tetany of the newborn was also considered and calcium gluconate given but it was not thought advisable to stick the baby for a blood specimen and the subsequent course failed to bear out this diagnosis.

The tense fontanel and convulsive tendency suggested intracranial hemorrhage, which may have occurred, but it was not thought advisable to do a spinal puncture. If this did occur there is no evidence to date of residual signs.

Another factor which was confusing was that the bleeding time was longer than the coagulation time. Sanford[3] stresses the point that a marked increase in the bleeding time over the coagulation time should lead one to suspect congenital syphilis. However, in this case the mother had been observed by one of us (K. S. H.) during her pregnancy and had a negative history and negative Kahn, and the baby showed nothing else suggestive of syphilis.

The most puzzling factor was the development and persistence of jaundice to an extreme degree. This, with the absence of bile in the stools, indicated biliary obstruction, and the presence of congenital atresia of the bile ducts[10] or pressure on the common or hepatic ducts by enlarged lymph nodes or other cause was suspected and an exploratory laparotomy contemplated. But due to the infant's slow general improvement despite the intense jaundice it was decided to wait for further developments, a course which finally resulted in recovery.

In searching the literature we were able to find only one case with any semblance to this one. It was reported by Glass[11] and was a case of fatal bleeding in a seven day old Negro boy who was jaundiced. At autopsy an unusual finding was a large hematoma in the duodenum, which resulted in intestinal obstruction; the hematoma was so located in relation to the ampulla of Vater that it also resulted in an obstruction to the common bile duct, which accounted for the marked icterus observed clinically.

Glass, in explaining the underlying cause of hemorrhage in his case, ruled out syphilis by serologic tests and observations at autopsy; sepsis by negative culture of the blood and absence of infection pathologically; hemorrhagic disease by failure of the patient to respond to transfusion and suggested the diagnosis of early hemophilia.

It is our impression that ours is a case of hemorrhagic disease of the newborn complicated by hemorrhage either into the gallbladder or into the intestinal wall ad-

joining the bile passages, or both, thus obstructing the flow of bile until the hemorrhage was absorbed or the clot passed through the bile passages. In addition to this there was possibly intracranial and adrenal hemorrhages as well.

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Discussion on Paper of Doctors Leslie and Hunt

Dr. Ruskin King (Savannah): After searching my mind and several more fertile sources of information, I could think of no better diagnosis than the one finally decided upon in this interesting case.

Hemorrhagic disease of the newborn, although not one of the major causes of infant deaths, will be encountered ever so often by physicians who treat infants. In my own experience, the incidence has been considerably higher than most observers report.

I think one point should be made with respect to intramuscular blood, and that is that we must not place utter dependence on this means. There is evidence to show that administration of blood by this route has no effect at all on the clotting mechanism. Just as in this case, intravenous administration should be resorted to in the severe cases without waiting to see whether or not the intramuscular blood will stop the bleeding, especially when the bleeding is internal.

During my internship some years ago, we had a case of hemorrhagic disease in a premature infant, with a tremendous mass in the left abdomen and with all signs of marked blood loss, who required eight intravenous transfusions before the growth of this mass was checked. The hemorrhage was interpreted to have been in the adrenal capsule.

Vitamin K is being used in the treatment of these cases with excellent reports of the results. I have had no experience with it, not having seen a case of hemorrhagic disease since its advent. Whether this treatment will replace blood as the most effective means of checking bleeding remains to be seen. Certainly in cases where transfusion cannot be carried out promptly, it should prove to be of great value if early reports concerning its benefits can be substantiated.

I think Dr. Leslie and Dr. Hunt have worked up a most interesting diagnosis for this case.

Dr. Wm. D. Wilson (Savannah): There are two points that I should like to stress in connection with the excellent paper you have just heard.

First, in case of persistent, progressive and obstructive jaundice in an infant the diagnosis is usually atresia of the common duct. If this is true, these causes invariably terminate fatally unless an exploratory laparotomy is done and the obstruction relieved. Dr. Ladd in 1928 reported 45 cases of atresia of the common duct. Thirty patients were not explored and all died. Fifteen patients were explored and nine survived. The procedure undertaken to relieve the obstruction depends on the findings at the time of operation. If bile is present in the gallblodder a cholecystoenterostomy may be performed. If there is complete atresia of the duct one must depend on the formation of an epithelialized external biliary fistula with anastomosis to the stomach or intestine at a later date. I believe that with the advent of recent knowledge in the control of the hemorrhagic tendency in biliary obstruction one could expect even better results than those reported by Dr. Ladd.

The second point I should like to stress is the fact that it has been found by several workers that vitamin K is of value in the active treatment of hemorrhagic disease of the newborn. Nygaard of Stockholm has treated several patients with this disease with vitamin K without transfusion, and states that the response is as favorable as that by the use of transfusion. If this be true the use of this substance may preclude the use of transfusion which in the newborn may be a rather arduous task.

HOW TO OVERCOME BREATHING BY MOUTH WHILE ASLEEP

About the only practical measure to help overcome breathing through the mouth during one's sleep is a sling or bandage that will hold the jaw closed during the night, *Hygeia, The Health Magazine* advises in a recent issue in answer to an inquiry.

"Some people find a solution by going to sleep in a different position—on the side instead of on the back," *Hygeia* says. "But, since most people change positions frequently during sleep, this does not always help. . . . Slings are often worn by chronic mouth breathers—after the removal of an obstruction in their nasal passageways—until they learn to breathe through their noses again. If such a bandage is used, it must be tight enough ot keep the mouth closed but not so tight that it will interfere with the circulation of the blood to the skin and thus become unpleasant or painful. If an elastic bandage is used, it must be relatively loose. However, a physician should inspect the nasal passages. These passages may have an obstruction which will permit nasal breathing during waking hours, but during periods of relaxation the obstruction may be sufficient to cause a natural shift to mouth breathing."

AN ANALYSIS OF FIVE HUNDRED INCOMPLETE ABORTIONS

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To the neophyte who wishes to manage his cases of incomplete abortion correctly the subject is puzzling. My interest, aside from that which any obstetric and gynecologic student would have, was stimulated by the variant ways in which cases are handled—ways which are often diametrically opposed. It has been my good fortune to have seen the so-called intra-uterine culture and douche method of one institution, the ultra-conservative method of another, and the dilatation and curettage management of still another. Each institution is strong in its belief that its method is the best one. Because the author has the highest regard for the obstetrical and gynecological judgment of the physicians in charge of these services, it is not surprising that at the completion of his work under these gentlemen he was in a quandary as to the best way to handle such a case.

This study, therefore, was undertaken with the hope that it would help me in deciding the question of interference or non-interference in incomplete abortion. It is not a comparative study of the methods mentioned above, for the culture and douche method was not used in the analyzed cases nor did the dilatation and curettage management follow the same pattern as at the institution which advocates this method, where contraindications to interference are parametrial extension of the infection and the presence of a positive hemolytic streptococcus cervical culture. Consequently, the statistical results obtained can be very fairly questioned by the proponents of the above mentioned clinics as not what would have occurred had the cases been handled in their services. However, it is thought to be a fairly good yardstick of what occurs in a general hospital where abortion cases are not handled entirely by physicians specially trained in obstetrics and gynecology.

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Years

The analysis includes all cases of incomplete abortion treated at the University Hospital, Augusta, Georgia, for the years 1926 to 1936, inclusive, with enough cases from the year 1925 to bring the total to 500. It is interesting to note the yearly number of cases. The figures according to years are given below. There is a decided increase in the number of cases after 1929, with a steady increase to 1934. For the years 1935 and 1936 there is a decline. This might be interpreted as the results of financial strain in the years 1929 to 1934. Are we to interpret the lower figures of 1935 and 1936 as indicative of recovery? If so, then might we not expect to find a decrease in the number of criminal abortions when civilization has progressed sufficiently far, so that each family is assured of a steady income on which to live comfortably? The probable correctness of this observation is given added support by the fact that the great majority of criminal cases occurred in married women.

1925	7	1931	53
1926	18	1932	55
1927	28	1933	57
1928	28	1934	79
1929	26	1935	63
1930	37	1936	49
Total	500		

Marital State

The marital state in percentage is as follows:

Single	9.01
Married	90.1
Divorced	0.5 plus
Widowed	0.2 plus

Racial

There were 67 cases in Negroes and 433 in whites. Negroes comprised only 13.4 per cent of the series.

Age

The oldest was 46; the youngest. 15. Average, 27.04.

Parity

Three hundred and twenty-two occurred in multipara; 65. in primipara. In 113 cases the parity was not given.

Comparison of Cases with Regard to Treatment Received

The cases were grouped according to the number of days of fever and the type of treatment they received, 100 degrees at any time being the standard for fever.

The types of treatment were as follows:

1. Non-interference—no invasion of the genital tract, just supportive measures employed.

2. Sponge stick removal of particles from vagina and cervix.
3. Sponge stick plus utero-vaginal pack.
4. Uterine pack.
5. Cervico-vaginal pack.
6. Dilatation and curettage.
7. Dilatation and curettage plus uterine pack.
8. Finger curettage.
9. Laparotomy.

Those patients treated by dilatation and curettage and dilatation and curettage plus pack were further divided into conservative, radical and doubtful groups.

A dilatation and curettage was considered as being a conservative measure when the temperature had been below 100 degrees for at least seven days before it was done.

A dilatation and curettage was considered radical when seven days had not expired from onset and the dilatation and curettage was done, even if the days preceding the dilatation and curettage were all afebrile; or when there had not been a seven-day afebrile period before the dilatation and curettage.

A dilatation and curettage was considered doubtful in those cases which from the available information on the chart it was impossible to tell whether or not the dilatation and curettage might be grouped as conservative or radical.

In grouping the radical dilatation and curettages according to the days of fever, only the days of fever after the dilatation and curettage was done were held against that type of treatment. For instance, if a patient had a temperature above 100 degrees for three days and a dilatation and curettage was done on the fourth day, the fever for the days before the dilatation and curettage was not counted against that type of treatment, only the fever occurring after the dilatation and curettage was counted.

After studying the cases according to this plan an afebrile per cent was calculated for each group. Example: in the non-interference group there were 144 cases. Fifty-one of these had an afebrile course.

Therefore, x : 100 : : 51 : 144
x — 35.4 afebrile per cent.

The results according to afebrile percentage were as follows:

Non-interference	— 35.4	afebrile.
Conservative dilatation and curettage plus pack	— 72.09	afebrile.
Conservative dilatation and curettage	— 62.1	afebrile.
Doubtful dilatation and curettage plus pack	— 38.6	afebrile.
Doubtful dilatation and curettage	— 57.1	afebrile.
Radical dilatation and curettage plus pack	— 32.5	afebrile.
Radical dilatation and curettage	— 34.5	afebrile.
Combined conservative	— 56.53	afebrile.

(This group includes the non-interference group, the conservative dilatation and curettage group, and the conservative dilatation and curettage plus pack group).

Combined radical	— 33.5	afebrile.

(This group includes the radical dilatation and curettage group and the radical dilatation and curettage plus pack group).

Combined doubtful	— 47.85	afebrile.
Sponge stick	— 34.6	afebrile.
Sponge stick and pack	— 43.2	afebrile.
Uterine pack	— 28.5	afebrile.
Cervical vaginal pack	— 33.3	afebrile.
Finger curettage	— 27.2	afebrile.
Laparotomy	— 20	afebrile.

The total number of afebrile cases equal 207.

The total number of febrile cases equal 290.

The three deaths that occurred several hours after admission are not included. These three patients were admitted in extremis. All had subnormal temperature during their short stay in the hospital. It was felt that in fairness they should be excluded from the afebrile group. Hence the apparent discrepancy.

Febrile percentage for whole series — 58.3

The total number of patients treated conservatively equals 376.

The total number of radical cases equals 82.

The total number of doubtful cases equals 42.

Deaths

There were ten deaths, a mortality of 2 per cent for the series. Six fall in the conservative group, but four of these were moribund on admission and died in less than twenty-four hours. It is probable that no type of treatment would have done any good.

There was one death in the abdominal group which will be discussed later.

Of the remaining five, three were treated by a radical dilatation and curettage plus pack and two by non-interference.

Radical

Case 1. This patient had a dilatation and curettage on the fourth day of her illness. She was sick for six months. The pathologic report from the dilatation and curettage was hydropic degeneration of the chorionic villi. The patient did not cease bleeding at any time during her six months of illness. She developed septicemia and died approximately six months after the onset of her illness. The possibility of the patient also having had chorionepithelioma must be considered.

Case 2. The dilatation and curettage was done on the seventeenth hospital day when the patient had had a septic course from the third to the twelfth days. Her temperature was below 100 degrees from the twelfth to the seventeenth days. On the seventeenth day the dilatation and curettage was done following which the patient again developed a septic course and died on the thirteenth postoperative day.

No positive blood culture was obtained. However, none was planted anerobically.

Case 3. A dilatation and curettage and pack was done on the fourth day although the patient had fever on the second, third and fourth days. She died on the seventh day. Her course appeared to be septic. Again no positive blood culture was obtained and none had been planted anerobically.

Conservative

Case 1. This patient had febrile course for six days. She appeared to be septic. Blood culture, negative. Treatment, non-interference. Only supportive measures employed.

Case 2. This patient had a febrile course of eleven days and no interference. Just supportive measures employed. Blood culture, negative.

Only two transfusions were given in this group of ten deaths; consequently inadequate supportive help was given.

Three of the four patients who died in less than twenty-four hours were admittedly criminal cases. The one death following laparotomy for drainage of pelvic abscess was also admittedly a criminal case.

Criminal

The number of admittedly criminal abortions equals 49.

Deaths

There were four deaths among the admittedly criminal abortions—death per cent of 8.1 against 2 per cent for the whole series.

Case 1. Died in less than twenty-four hours. Admitted in extremis.

Autopsy—suppurative endometritis, metritis, salpingitis and peritonitis. The abortion was done ten days before admission but no information was given as to how done, or by whom performed. Temperature was subnormal.

Case 2. Admitted in extremis. Died in less than twenty-four hours. No autopsy. Abortion performed by Negro midwife. Tight packing placed in vagina two weeks before admission. Subnormal temperature.

Case 3. Admitted moribund. Died in less than twenty-four hours. No autopsy. Admittedly criminal but no information as to when or by whom performed. Temperature was subnormal.

Case 4. Performed by abortionist four days before admission by passing metal instrument into womb. No rubber gloves were used. Instruments were taken out of bag and used without boiling. On the twenty-seventh hospital day pelvic abscess posterior to uterus was drained abdominally. Patient died on thirty-seventh hospital day, ten days after abdominal drainage. No autopsy.

Fever

The average number of days of fever in admittedly criminal cases treated conservatively was 2.96.

The average number of days of fever in admittedly criminal cases treated radically was 3.52.

Stay in Hospital

The average stay in the hospital for admittedly criminal cases, excluding three cases that died in less than twenty-four hours, was 8.8 days.

Methods

Ten claimed to have induced the abortions themselves. Methods used were; boiled wire, slippery elm stick, catheter, dilatation of cervix with finger.

Ten admitted abortions were criminal but would give no information.

The 29 remaining ones were done by abortionists or midwives. Methods used were: passing of sound into uterus, cervical packing, dilatation of cervix, and curettage.

Stay in Hospital

The average stay in the non-interference group equaled 6.74 days.

The average stay in the dilatation and curettage conservative group equaled 8.1 days.

The average stay in a radical group equaled 10.43 days.

The average stay in a dilatation and curettage doubtful group equaled 7 days.

The average for the whole series equaled 8.06 days.

Study with Regard to Duration of Pregnancy

The cases were divided into first and second trimester abortions. There were 283 occurring during the first trimester, with an average number of febrile days of 1.75. Ninety-eight occurred in second trimester, with an average number of febrile days of 2.22. In the remaining number it was impossible to tell from records just how far pregnancy had advanced.

Anemias

Fever

The number of cases of anemia is small because in many cases there were no red blood counts recorded on the chart. The standard for anemia was set at hemoglobin 70 per cent, red cell count 3,500,000; that is to say, any case falling below these figures was considered anemic. There were 65 such cases. This cannot be considered as a true estimate of the actual number for had a red cell count and hemoglobin estimate been made on each patient it would have run higher. Only those anemic were recorded and consequently the number with normal counts and the number without normal counts is not known.

However, 51 of these 65 had a febrile course. This gives a febrile percentage for an anemic group of 78.4, against a febrile percentage of 58.3 for the series as a whole.

Shock

The number of cases of shock in the series was 20, giving a shock percentage of 4. All of these cases were in shock on admission. On four of these there were no red blood cell counts. Thirteen of the remaining 16 fall into the anemic group according to the standard mentioned above. The remaining three had red counts which were above the standard for anemia on admission. There were no counts repeated at a later date and consequently it is not known whether or not they would have fallen into the anemia group when the diminished blood volume from recent hemorrhage was again in normal balance, some twenty-four to forty-eight hours after admission. They were not included because from the available information on charts they did not fall below the anemia standard. Incidentally they were all distinctly febrile cases and had they been included in the anemia group the febrile percentage for anemia would have run higher.

Transfusions

The number of transfusions given in the entire series was small, only 31. Of the 20 shock cases only 11 received transfusions and 7 of these were on the second

day or later when the patient was out of shock and consequently not at the time when most needed.

Hospital Stay

The hospital stay in the anemia group is longer, excluding cases that died in less than twenty-four hours. The average stay for the entire series equaled 8.06 days.

The average stay for anemias equaled 9.4 days.

It is felt that these facts and figures speak very strongly for the necessity of establishing some means whereby blood may be obtained readily. The reason blood was not given these patients was not because of a failure to appreciate the necessity for its administration, but because of a lack of means of obtaining it. The time is probably not far removed when it will be required of each hospital that wishes an A-1 rating that it have within its organization some arrangement whereby blood may be obtained promptly and without fail.

Conclusion

It would appear from this study that the afebrile percentage decreases with increasing genital invasion. Therefore, it is felt that it is best to adopt the attitude of staying out of the uterus if possible. However, just as it is unintelligible to state that all cases of heart disease or nephritis should be treated in one way, so too it is unintelligible to say that all cases of abortion should be treated in one way. Each case must be individualized. There are those cases which nature will handle herself and these comprise the majority. Here the physician need only help by supportive measures and perhaps administration of oxytocics. Then there are those cases which nature is unable to handle herself. Here the physician may help by emptying the uterus as gently as possible but only after the patient has been fever free for several weeks.

The emergency of profuse and dangerous bleeding is the only indication for deviation from this plan. It is felt that it is not nearly as frequent an occurrence as one would be led to believe from the frequency with which packing is employed.

One often finds in bleeding cases that tissue is hanging free in the cervix and that its removal with sponge stick is all that is necessary. If such is not the case, then packing will meet the emergency.

From the Russian experiment of legalized abortion much is to be learned. It has been found there that one-fourth of the cases of spontaneous abortions have complications and one-half of the cases of induced abortions have complications. Since curettage is a means of interruption in Russia, it is felt that we have a parallelism here between incomplete abortion handled by curettage and therapeutic abortions handled by curettage. I mean the same complications might be expected to occur in incomplete abortions handled by curettage as in therapeutics handled by curettage.

The Russian physicians unanimously agree that since the legalization of abortion there has been an increase in sterility, ectopic pregnancies and pelvic invalidism. Nine per cent of the women having a dilatation and curettage are rendered sterile following the operation.

These facts lend their support to the policy of staying out of the uterus if possible. It is not enough just to be interested in stopping the bleeding and shortening the stay in the hospital. We must endeavor to treat the patient in that way which will assure her return to normal or as near normal as possible.

I am greatly indebted to Dr. Richard Torpin and Dr. Joseph Akerman for their helpful suggestions.

The author also wishes to thank Dr. David Hicks, Jr., for helping compile these statistics.

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Discussion on Paper of Dr. Chas. M. Mulherin

Dr. Edgar H. Greene (Atlanta): Any discussion of the management of abortion will naturally become greatly involved. There are no definite rules to follow in the treatment of criminal abortion, however, Dr. Mulherin and I are thoroughly in accord with an individual procedure as the basic principle. Most cases, with the addition of supportive measures and indicative oxytocics, respond to conservative treatment. Since most criminal abortions are the result of instrumentation, which often leaves a streptococcic infection in the field of operation, it is never wise to use the sharp curette, or the intra-uterine douche. My experience has shown that the gentle removal of the products of conception with a sponge forcep will do no harm, provided trauma is carefully avoided. The use of sulfanilamide in these cases is an efficacious medicinal adjunct.

All cases of septicemia or septic abortion should be typed immediately upon entrance to the hospital. This information is essential in case a transfusion is indicated later.

It should always be remembered that streptococci may be dormant, eight, ten or even twelve years after septic cases and if disturbed may cause severe illness and oftentimes, death.

The cause of abortion and the economic status of the families are factors to be considered. What is the cause of criminal abortion? In the cases Dr. Mulherin reported, 300 abortions were in multipara and 65 in primipara. (433 white—67 colored).

The three hundred women who had previously borne children had reason for interrupting their pregnancies. If women do not want to have children (and they should be the ones to decide since they bear the physical burden) it is my belief that the medical profession or other properly trained individuals, should instruct them how to prevent conception. The prevention of pregnancy, in case of unwanted children, may save the woman from the damaging effects of the abortion, such as a general weakened condition, complicated pelvic conditions, sterility and even death. Those who are financially able already have preventive measures and know something about birth control and contraception. The reports that are made in this paper are of women of the low income brackets. These are the ones who are losing their health and even their lives through lack of intelligent instruction. Therefore, I believe it is the duty of the medical profession to put within the reach of every woman the educational facilities available and to put the responsibility of the decision of having children upon her.

Dr. Chas. M. Mulherin (Augusta): I don't think there is very much to be added. I wish to thank Dr. Greene for his discussion and to say that I agree with him that it does seem a pity that so many women of the lower income bracket are not given the benefit of contraceptive instruction. We know what happens. Many go ahead and have criminal abortion. The dissemination of contraceptive instructions, not indiscriminately but judiciously, has been recommended by Dr. Frederick Taussig, one of medicines' authorities on the subject, as one step toward the prevention of so many criminal abortions.

SYNTHETIC FEMALE SEX HORMONE

Twenty-five girls, ranging in age from 20 months to 12 years, were successfully treated for a gonorrheal infection by the administration by mouth of a synthetic female hormone called diethylstilbestrol, Joseph D. Russ, M.D., and Conrad G. Collins, M.D., New Orleans, report in *The Journal of the American Medical Association* for June 22.

The condition is generally the result of accidental infection from contaminated materials and is common in young girls, especially under the age of 7 years. Its treatment has always been difficult.

In the cases reported by the New Orleans physicians negative smears were obtained in from seven to eighteen days. The substance was crushed and administered in two ounces of milk. The two physicians say that: "The rapidity of cure, the absence of any toxic or deleterious effects and the ease of administration as regards both the family and the physician lead us to believe that it is an ideal drug for the treatment of this condition." They also point out that it is an economical method of treatment.

SURGERY OF THE SPLEEN

Report of Cases

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The spleen, while not necessary for the maintenance of life or health under normal conditions, proves to be an organ which under certain pathologic conditions holds the balance between ultimate or immediate life and death. Although one of the most accessible structures from the standpoint of experimental study, little is known conclusively concerning its function.

To attempt any enlightened discussion of the physiology of the spleen, with the experimental work and clinical studies on which such knowledge is based, would require unlimited time and space. It is sufficient to mention the outstanding functions concerning which there is more or less unanimity of opinion.[1] The spleen serves as a filter for the blood stream, both for bacteria and for debris which results from normal metabolic processes. It is a great reservoir for blood, being able to store as much as one-fifth of the entire volume of the blood in the body and hold it in reserve from the general circulation. The spleen has an important function in the fetus, in the formation of erythrocytes, and, in the adult, may reassume this function under certain conditions. It is a constant source for the production of lymphocytes. The normal spleen is thought by some to stimulate the bone marrow to erythropoieses. The spleen serves the body as a clearing house in which old erythrocytes, leukocytes, and blood platelets are phagocytized and destroyed. This destruction of erythrocytes in the spleen gives this organ an important function in the metabolism of bilirubin and in the storage of iron.

The removal of the normal spleen seems to cause no deleterious effect on the individual. Ash-Upmark[16] collected 100 cases in which the normal spleen had been removed; 99 were for trauma. These cases were followed for one to twenty-seven years after splenectomy. He found no increased

susceptibility to infection or to malignant tumors but did note a tendency to rapid exhaustion. He concluded that although the spleen should not be removed except on vital indications, individuals from whom normal spleens had been removed should be accepted for life insurance on the usual terms.

There may be a transient rise in erythrocytes leukocytes and blood platelets following splenectomy, but as the remaining portion of the reticulo-endothelial system compensates for the loss of the spleen, the cellular elements of the blood soon return to a normal level. It has been shown by Gordon and Kleinberg[12] that the anemia following splenectomy is no greater than

1. Migration and transiency must be recognized as permanent characteristics of American society.

2. An organization of Federal level should be created to direct and influence migration.

3. Through the planned cooperation of the Federal and State governments medical care should be provided for all needy persons, regardless of residence.

4. Particular concentration of transients in a State should be considered a special health problem in the allotment of Federal funds for the maintenance and improvement of local public health facilities.

5. The administration of any program of medical care for transients should be a function of the local agency responsible for the care of needy residents.

an anemia which follows simple abdominal section or the removal of any other organ. Splenectomized guinea pigs showed a maximum loss of ability to destroy red cells twenty-five to thirty days after operation, and this is the time when the increase in red cells and platelets is greatest.

The diseases in which the spleen assumes an apparent role may for convenience be divided into four groups.[2] These are:

1. Diseases due to toxic agents or infections.

2. Diseases associated with abnormalities of the white cells and related structures.

3. Diseases associated with changes in the red cells and blood platelets.

4. A miscellaneous grouping. Group 1 includes tuberculosis, syphilis, malaria, and biliary cirrhosis. Group 2 includes the leukemias and Hodgkin's disease. In group 3 the more common conditions are splenic anemia or Banti's disease, thrombocytopenic purpura, hemolytic jaundice, pernicious anemia and polycythemia vera. Group 4 includes tumors of the spleen, ruptured spleens, and a little understood group, such as Gaucher's disease.

In group 1 the pathologic change is a systemic condition and the splenomegaly is only secondary. Splenectomy in this group should be limited to such patients as may show improvement or gain relief from discomfort or possible focus of infection as a result of the removal of a large involved spleen. One such case is found in the group comprising this report. (Case 1) A young woman with pulmonary tuberculosis and secondary involvement of the spleen was completely relieved of pain and discomfort by the removal of a spleen that weighed 2,000 grams. She lived in comfort for two and one-half years before dying of pulmonary disease.

The diseases falling in group 2 no longer concern the surgeon. It is generally considered that splenectomy in the leukemias is of no permanent value and that the use of the x-ray or radium is of more palliative value. The same may be said of Hodgkin's disease.

It is in group 3 that surgery finds its most useful field. The types in this group which are amenable to surgery will be discussed in some detail.

Splenic Anemia or Banti's Disease

This condition is characterized by splenomegaly, secondary anemia, leukopenia, a purpuric tendency, and evidence of portal obstruction, this latter becoming evident later in the disease and manifested by ascites or hemorrhage from the esophagus, or both.[34] The etiologic factors are not known. The spleen shows a thickened capsule, with normal splenic tissue replaced by fibrous tissue with obliteration of the veins and sinuses. A collateral circulation is usually well established. It has been shown[3] that there is present a portal hyper-

tension, the pressure in the splenic vein being three to four times more than normal. This fact is given by some authors as evidence that the primary etiologic factor is portal cirrhosis and that splenomegaly is a secondary finding. Against the liver being the site of the primary pathologic changes is the fact that early splenectomy often stops the progress of the disease. The diagnosis is usually made by exclusion of other possible causes of splenomegaly. The treatment is splenectomy. Rousselot[17] reported 15 cases of Banti's disease subjected to splenectomy with two operative deaths and three late deaths from the disease. Ten patients were living ten years after splenectomy and only one of the ten had recurrence of symptoms. Mayo and Giffin,[18] reporting on 184 cases, showed an operative mortality of 9.2 per cent. The mortality among patients less than 40 years of age was only one-half that of those above that age. Both immediate and late results were better in the younger group. Of 167 survivors of splenectomy for Banti's disease, 92 were living one to twenty years afterward.

"Two cases of splenic anemia are included in the authors series." Both were white males, aged twelve and fourteen years. Both recovered from splenectomy and are in good health and symptom-free two and one-half years and two years postoperatively respectively.

Thrombocytopenic Purpura Hemorrhagica

This is a chronic disease, occurring in mild or severe forms, with acute exacerbations, characterized by tendency to bleeding from the mucous membranes, subcutaneous hemorrhages, either spontaneous or the result of trifling injuries, and secondary anemia.[3 4 5 19] Blood studies reveal a marked lowering of the blood platelets below 100,000, a normal clotting time, a prolonged bleeding time, and a delay in or absence of clot retraction. The tourniquet test, or capillary resistance test, is positive.[6] The spleen, as a rule, is not enlarged or only moderately so. The etiology of this condition is not known. It appears that this is a chronic disease, continuous in character, with complete remissions, and with acute exacerbations which may be fulminating and fatal. The remissions may be of short duration or may be permanent as far as bleeding to any degree is concerned. That so many patients are permanently relieved of the acute symptoms of bleeding and subcutaneous hemorrhages, and yet continue to bruise easily, lends support to the idea of a continuous disease which is not cured but in which remissions occur, either spontaneously or as the result of therapy, and these remissions may be permanent.

It is apparent that some unknown element in the body causes a marked reduction in the number of blood platelets, either by destruction or inhibition of production. Also the resistance of the capillary walls to the passage of the elements of the blood is reduced. That the causative factor is related to the reticulo-endothelial system has long been supposed and attention has thereby been focused on the spleen, it being the largest single member of this important system. The interest in the causal relationship of the spleen to purpura was given great impetus in 1916 when Kaznelson[7] performed the first splenectomy for this disease. A recent report by Troland and Lee[8] adds to this interest in the spleen as a causal factor. Using acetone extract of purpuric spleens, they were able to produce severe thrombocytopenia in all experimental animals into which injections of the extract were made. This did not occur when extracts made from normal spleens or other body tissues were used. No bleeding tendency developed in the presence of this experimental thrombocytopenia but only one injection was given in each instance and the platelet counts returned to normal within thirty-six to forty-eight hours. The maintenance of thrompocytopenia by repeated injections of the extract over a long period of time may throw further light on this interesting finding. Kracke,[9] of Emory University, is attempting to confirm this work. Torrioli and Puddu[18] in Italy have independently found results similar to those of Troland and Lee.

In view of definite spontaneous remissions in this disease, some apparently permanent, treatment should be conservative and all medical therapy should be re-

sorted to before surgery is advised. These medical measures consist of treatment directed against foci of infection, diet, calcium, and iron, vitamin therapy, discontinuance of caustive drugs, and transfusions in the presence of severe anemia or serious bleeding. The use of snake venom may be tried,[20] although recent reports on this form of therapy are not encouraging. Irradiation of the spleen and long bones with the roentgen ray is recommended by some radiologists. The few reports[21 22] favoring this form of treatment, however, are not substantiated yet by other reports using the same dosage and periods of treatment.

All forms of medical therapy having been exhausted without gaining a permanent remission, splenectomy is indicated, and the patient with recurring episodes of bleeding should not be denied the benefits of splenectomy too long. The results from splenectomy are satisfactory and in many instances spectacular. The rise in platelet count can be demonstrated in many cases while the patient is still on the operating table. That all patients with thrombocytopenic purpura are not cured by splenectomy is readily admitted, but in those with recurring symptoms, it offers the best chance for permanent cure. Wintrobe and associates, reporting the results in the treatment of 63 cases of purpura, showed that in 44 treated medically and observed for periods of time longer than three years, there were only 29.8 per cent that obtained a permanent remission and there was a mortality of 13.6 per cent in this group from the disease. This was in contrast to nineteen patients subjected to splenectomy with permanent remissions in 75 per cent and a mortality of 15.7 per cent, only 2 per cent higher than in the medically treated group. It is obvious that medical treatment is not without its dangers. Mayo and Giffin,[18] reporting on 57 splenectomies for purpura between 1923 and 1934, showed an operative mortality of 4 per cent. A follow-up study on these cases covering from one to ten years showed 63 per cent remissions and 35 per cent improved, with only one recurrence of severe hemorrhage. Improvement was considered to mean a cessation of bleeding but a continuance of a tendency to bruise easily. On this basis 98 per cent showed improvement to a degree to justify splenectomy. Eliason and Ferguson,[24] reporting on 213 collected cases in which splenectomy was performed, showed a total mortality of 13.1 per cent but for 113 cases done between 1928 and 1932, a mortality of 7 per cent. There were 73.2 per cent of the cases with permanent cures and 8 per cent improved, a total of 81.2 per cent with satisfactory results and only 2.8 per cent unimproved. Patients subjected to splenectomy in an acute phase of the disease showed a mortality of 34.2 per cent with 65.7 per cent, or all patients surviving operation, showing satisfactory results. In patients splenectomized in a quiescent or chronic stage, the mortality was 7 per cent with 88.1 per cent satisfactorily improved and only 2.5 per cent unimproved.

It is obvious that in a disease involving a system so widespread as the reticulo-endothelial system, the removal of one part of that system, even though a major part, may not relieve the symptoms in 100 per cent of patients. Various theories are advanced as causes of the continuance of symptoms after splenectomy, perhaps the most logical being that the remaining part of the reticulo-endothelial system rapidly compensates for the loss of the spleen. The part played by focal infection in recurrences, as well as in initial attacks, is not understood but is clearly recognized, and the failure to remove such foci as diseased tonsils or abscessed teeth may be the factors stimulating the reticulo-endothelial system to the over-destruction of blood platelets. This is rather strikingly demonstrated in three of the cases reported by Grove,[28] one in whom permanent remission occurred after one attack associated with acute pharyngitis; one in whom a recurrence developed due to failure to remove diseased tonsils, with a permanent remission to date three and one-half years following tonsillectomy; and in the third, death following tonsilectomy twelve months after splenectomy, where tonsillectomy was delayed long enough to allow a serious recurrence. A second cause which must be given serious

consideration is the presence of an accessory spleen which was not removed at the time of splenectomy. Fradkin[25] reported the various pathologists gave the occurrence of accessory spleens to be from 11 to 35 per cent, and there may be from one to seven of these accessory splenic nodules. He reported one case of purpura with a recurrence of symptoms shortly after splenectomy in which an accessory spleen was noted at the time splenectomy was performed but not removed. Eccles and Freer[26] report a case in whom splenectomy was performed and at a subsequent operation eight years later a spleen of almost normal size was found. These accessory spleens are more common in children and tend to atrophy with maturity. In the thirteen splenectomies performed by the author, accessory spleens were encountered and removed in three cases.

There are seven cases of purpura in this present series with five splenectomies (Cases 4, 5, 6, 7, 8, 9, 10). The two cases not subjected to splenectomy were in females and in both, symptoms appeared to be secondary to acute infections in the nasopharynx. Case 4 has had a permanent remission to date, eight years. Case 5 was free of symptoms for two years following the original bleeding, with a recurrence at the end of that time during a second attack of acute tonsillitis and stomatitis. There has been no recurrence since tonsillectomy was performed, three and one-half years, but this patient still bruises easily. The five patients subjected to splenectomy showed sudden cessation of bleeding and rise in platelets count and four of them are well and without recurrences, ten, six, and five years, and two years respectively. Case 6 was well for six months, when symptoms recurred with a platelet count of 65,000. She recovered spontaneously and was well except for bruising easily until twelve months after splenectomy, when she died suddenly a few hours after a tonsillectomy. There was no excessive bleeding observed and the child died with a terminal temperature of 108 degrees. The platelet count was 130,000 at the time of tonsillectomy. An autopsy was not permitted and the true cause of death is not known. It is possible that a tonsillectomy soon after splenectomy may have prevented the recurrence.

Hemolytic Jaundice

This is a chronic disease, familial in character, characterized by mild jaundice, anemia and splenomegaly.[11 12] The diagnosis is established by the findings of spherical microcytes in the blood smears and by an increased fragility of the red cells to hypotonic salt solution. It is definitely known that the spherical microcyte is the pathologic entity in this disease and it is the destruction of this cell by the spleen which produces the anemia and jaundice. It has been shown[11] that the blood in the splenic artery contains 10.4 per cent spherical microcytes, while the splenic pulp contains 48 per cent and the splenic vein only 8.4 per cent. It has been further shown[13] that a normal erythrocyte, when subjected to hypotonic salt solution, assumes a spherical or globular form in the lower concentrations of salt just prior to that in which hemolysis begins. Thus a spherical form of erythrocyte is necessary for hemolysis and the spherical microcyte is in a form which is readily destroyed. Splenectomy is the treatment of choice and is curative. Patients with hemolytic jaundice retain the spherical microcyte and increased fragility after splenectomy but show no jaundice. Lord Dawson of Penn[14] reported a woman who showed increased fragility forty-five years after splenectomy although there had been no recurrence of the jaundice.

Thompson[27] reported 30 cases of hemolytic jaundice subjected to splenectomy without an operative death, all of whom remained well and free of symptoms over varying periods of years. He also reported 15 cases of atypical jaundice in whom all evidence of the disease was present except the spherical microcyte and increased fragility. Four of these patients were subjected to splenectomy without improvement. The remaining 11 were proven in the course of time to have other causes for the jaundice. Mayo and Giffin[18] reported 128 patients subjected to splenectomy with an operative mortality of 3.1 per cent. Of 11 deaths in subsequent years only four could be

attributed to the original disease. Of 110 of the patients living at the time of their report, 86 per cent were entirely well. These authors stress the importance of early splenectomy in cases of hemolytic jaundice, before secondary hepatic changes have set in, as in their experience operative and late mortalities were higher in the group with liver damage.

There have been three cases of hemolytic jaundice in the author's series, all treated by splenectomy without mortality. A white male (Case 11), aged four and one-half years, showed all the typical findings of the disease. Since splenectomy in August, 1938, he has shown a disappearance of his jaundice and an increase in red cells and hemoglobin from a preoperative level of 700,000 and 22 per cent to 4,350,000 and 80 per cent in three months' time.

Included in the cases falling in group 4 in the classification here used are a case of fibro-angioma of the spleen (Case 12) and a rupture of the spleen from trauma (Case 13). The fibro-angioma was in a four-months-old infant and has been reported elsewhere.[15] As shown in that report, true angiomas of the spleen are rare, only 25 cases having been reported in the literature up to 1934. This patient has been seen repeatedly since splenectomy was performed in 1935 and is now a normal, healthy child of three years of age.

The one case of traumatic rupture of the spleen (Case 13) was in a boy twelve years of age, who was struck by a brick in the left side just below the costal margin. Exploratory laparotomy revealed a stellate tear in the substance of the spleen, necessitating splenectomy. When last seen he was in good health.

Report of Cases

Case 1—White female, aged 34 years. The findings were those of early pulmonary tuberculosis with secondary involvement of the spleen. Because of mechanical difficulties due to the size of the spleen, it was removed. Weight 2,000 grams, measuring 24 x 10 x 7 cm. The patient was relieved of abdominal pain for two and one-half years before dying from pulmonary disease.

Case 2—White male, aged 12 years. Chief complaint: bleeding from the nose and vomiting of blood for 8 years. Under medical treatment for 20 months without improvement. R.B.C. 2,440,000. Hb. 50 per cent. W.B.C. 6,800 with normal differential. Platelets 150,000. Clotting mechanism normal. Tests for syphilis and malaria negative. Liver function test normal. Spleen 3½ in. below costal margin. Diagnosis: Banti's splenic anemia. Splenectomy 10-12-37. Uneventful recovery. Three months after operation: R.B.C. 5,360,000. Hb. 84 per cent. Platelets 280,000. Health good 13 months after splenectomy.

Case 3—White male, aged 14 years. Chief complaint: poor health for years, poor appetite, anemia, failure to develop properly. No hemorrhages. R.B.C. 3,610,000. Hb. 52 per cent. W.B.C. 3,200 with normal differential. Clotting mechanism normal. Platelets 120,000. Tests for syphilis and malaria negative. Spleen palpable down to umbilicus. Diagnosis: Banti's splenic anemia. Splenectomy 6-11-38. Uneventful recovery. Improvement in health rapid. Gain of fourteen pounds in weight at end of four months.

Case 4—White female, aged 13 years. Chief complaint: blue spots over body and under mucous membranes, sore throat and enlargement of nodes in neck, all of short duration. R.B.C. 4,380,000. Hb. 83 per cent. W.B.C. 19,420 with normal differential. Platelets 220,000. Clotting time normal. Bleeding time prolonged. Clot retraction delayed. Treatment directed to the throat infection along with transfusion and irradiation of long bones and spleen. Platelet count dropped to 20,000 in nine days after admission. Gradual disappearance of purpuric spots with clearing up of throat infection. No recurrence in six and one-half years. Diagnosis: thrombocytopenic purpura with spontaneous remission.

Case 5—White female, aged 28 years. Chief complaint: blue spots over body, bleeding from gums and vagina, sore throat. Symptoms 3 days' duration, starting after receiving an injection of typhoid vaccine. R.B.C. 4,590,000. Hb. 67 per cent. W.B.C. 5,950,000 with normal differential. Clotting time 2¾ min. Bleeding time 21 min. Platelets too few to count accurately. Treatment directed to the acute tonsillitis. Platelet count 23,500 in three days with cessation of bleeding. Symptom free for two years, when a recurrence set in following another attack of acute tonsillitis and stomatitis. Massive uterine hemorrhage. Blood platelets 39,150. After transfusion, platelets 143,000 in twenty-four hours. Two months later when tonsillectomy performed, platelet count 536,000. Complete remission for two and one-half years but still bruises easily. Diagnosis: thrombocytopenic purpura.

Case 6—White female, aged 2½ years. Chief complaint: bruising easily, blue spots over body, bleeding from nose and urinary bladder, for 18 months. Had been treated with transfusion, snake venom, and an autogenous vaccine with no improvement. R.B.C. 3,560,000. Hb. 60 per cent. W.B.C. 12,000 with normal differential. Blood platelets 15,000. Clotting time 3 min. Bleeding time 35 min. No clot retraction. Spleen moderately enlarged. Diagnosis: thrombocytopenic purpura. Splenectomy 9-1-37. Uneventful recovery. Platelet count 200,000 on seventh postoperative day. Three months postoperative, platelet count 130,000 and child in good health except for bruising easily. Six months postoperative, suffered a recurrence with drop in platelets to

65,000. Spontaneous remission and remained well until 12 months after operation. Died suddenly a few hours after tonsillectomy with a temperature of 108 degrees. No unusual bleeding. Platelet count 130,000 at time of tonsillectomy. No autopsy. Cause of death unknown.

Case 7—White male, aged 24 years. Chief complaint: bleeding from nose, subcutaneous hemorrhage, bloody sputum. Excessive bleeding and subcutaneous extravasation of blood following hemorrhoidectomy some months prior to admission to the hospital. No improvement on medical treatment. R.B.C. 3,840,000. Hb. 55 per cent. W.B.C. 27,000 with 80 per cent polys. Blood platelets 60,000. Clotting time 2½ min. Bleeding time prolonged. No clot retraction. Spleen moderately enlarged. Diagnosis, thrombocytopenic purpura. Splenectomy in 1930. Postoperative broncho-pneumonia with recovery. Third week postoperative platelet count 300,000. Complete remission for eight years.

Case 8—White female, aged 22 years. Chief complaint: profuse uterine bleeding, bleeding from gums, blue spots under skin. Four months treatment by diet, vitamins A and D, liver extract, calcium, transfusions, snake venom, irradiation of long bones and spleen, produced no remission. R.B.C. 3,200,000. Hb. 60 per cent. W.B.C. 9,300 with normal differential. Blood platelets 13,000. Clotting time 2½ min. Bleeding time prolonged. No clot retraction. Spleen not palpable. Diagnosis: thrombocytopenic purpura. Splenectomy in 1934. Uneventful recovery. Platelet count 120,000 on tenth postoperative day. Clotting mechanism normal. Complete remission for four years.

Case 9—White female, aged 31 years. Chief complaint: profuse frequent and irregular menstruation, hemorrhage into joint cavities and under skin, six months duration. Treated with transfusions, snake venom, intrauterine radium with no improvement. R.B.C. 2,870,000. Hb. 45 per cent. W.B.C. normal. Blood platelets 50,000. Clotting time 2½ min. Bleeding time prolonged. Clot retraction delayed. Spleen moderately enlarged. Diagnosis: thrombocytopenic purpura. Splenectomy in 1935. Uneventful convalescence. Complete remission for three years.

Case 10—White male, aged 3½ years. Chief complaint: repeated attacks of swelling of upper lip with bluish discoloration, blue spots over body, bleeding from nostrils and gums. Symptoms for one year. Treated with transfusions, calcium and cod-liver oil, snake venom, without improvement. R.B.C. 4,720,000. Hb. 65 per cent. W.B.C. 8,400 with normal differential. Clotting time 7½ min. Bleeding time prolonged. Diagnosis: thrombocytopenic purpura. Splenectomy 7-28-38. Uneventful recovery. On the fourth postoperative day, platelet count 300,000; on seventh postoperative day, platelets 1,230,000; at time of discharge from hospital platelet count 350,000. Complete remission to date, four months.

Case 11—White male, aged 4½ years. Chief complaint: repeated attacks of acute abdominal pain for nine months, associated with nausea and vomiting. Mild jaundice developed two weeks after initial attack, with no decrease in degree of jaundice to time of admission. His great grandmother died from an unknown disease of one year's duration in which jaundice was the outstanding symptom. R.B.C. 700,000. Hb. 22 per cent. W.B.C. 9,500 with normal differential. Many nucleated red cells, reticulocytes and spherical microcytes in all blood smears. Fragility test: hemolysis began at 0.50 per cent, complete at 0.44 per cent; for control, hemolysis began at 0.46 per cent, complete at 0.34 per cent. Icterus index 44. Blood platelets 380,000. Liver and spleen moderately enlarged. Diagnosis: hemolytic jaundice. Splenectomy 8-17-38. Uneventful recovery. All jaundice cleared by time of discharge from hospital. Three months postoperative, R.B.C. 4,350,000. Hb. 80 per cent. W.B.C. 18,400 with normal differential. Platelets 210,000.

Case 12—White female, aged 4 months. Chief complaint: vomiting, mass in left side of abdomen. All laboratory data normal except for a mild secondary anemia. Mass in upper abdomen freely movable, did not extend under costal margin, was not connected with G. I. or G. U. tracts. Exploratory laparotomy 12-3-35 revealed a tumor of the spleen. Splenectomy. Uneventful recovery, continued good health and normal development to date, three years. Diagnosis from microscopic study of tumor: fibro-angioma of spleen.

Case 13—White male, aged 12 years. Chief complaint: struck in left side by a brick. Immediate shock and collapse. Diagnosis: intra-abdominal hemorrhage. Exploratory laparotomy revealed stellate rupture of spleen. Splenectomy. Uneventful recovery. Entirely normal when last seen.

Since above cases were compiled we have done splenectomies in four additional cases, diagnosed as hemolytic jaundice, making a total of 17 splenectomies with no operative mortality. One of the cases diagnosed as Banti's Disease has returned with recurring massive hemorrhages from the gastro-intestional tract and a progressive enlargement of the liver.

Summary

1. A review of the literature on splenic surgery is briefly given.

2. Thirteen cases are reported and in eleven splenectomy was performed without an operative death.

3. Splenectomy was performed for one case of secondary tuberculosis of the spleen; two cases of Banti's splenic anemia; five cases of thrombocytopenic purpura; one case each of hemolytic jaundice, fibro-angioma of the spleen and traumatic rupture of the spleen.

4. Two patients with thrombocytopenic purpura obtained complete remissions and are well six and two years respectively, without other therapy than the removal of

foci infection.

5. Two late deaths occurred in the series. The patient with tuberculosis of the spleen died of pulmonary tuberculosis. One purpura patient died twelve months following splenectomy, a few hours after a tonsillectomy; cause of death unknown but not due to hemorrhage.

6. Nine of the eleven patients who had splenectomy operations are living and well and free of their original disease which necessitated splenectomy.

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USE OF GLASSES FOR NEARSIGHTEDNESS

Whether a nearsighted person can do without glasses all the time depends to a great extent on his temperament. If he is the highstrung type of person who must see clearly all the time and who, intentionally or unintentionally, squints and strains to see distinctly without his glasses, then he must wear them constantly. If, on the other hand, he is an amiable, easygoing placid individual who accepts blurred vision passively, he can usually use his glasses or not as he desires.—*Hygeia, The Health Magazine.*

CHRONIC HYPOGLYCEMIA IN PSYCHOTIC PATIENTS FOLLOWING PROLONGED INSULIN SHOCK THERAPY

A Preliminary Report

J. R. S. Mays, M.D.
Y. H. Yarbrough, M.D.
Milledgeville

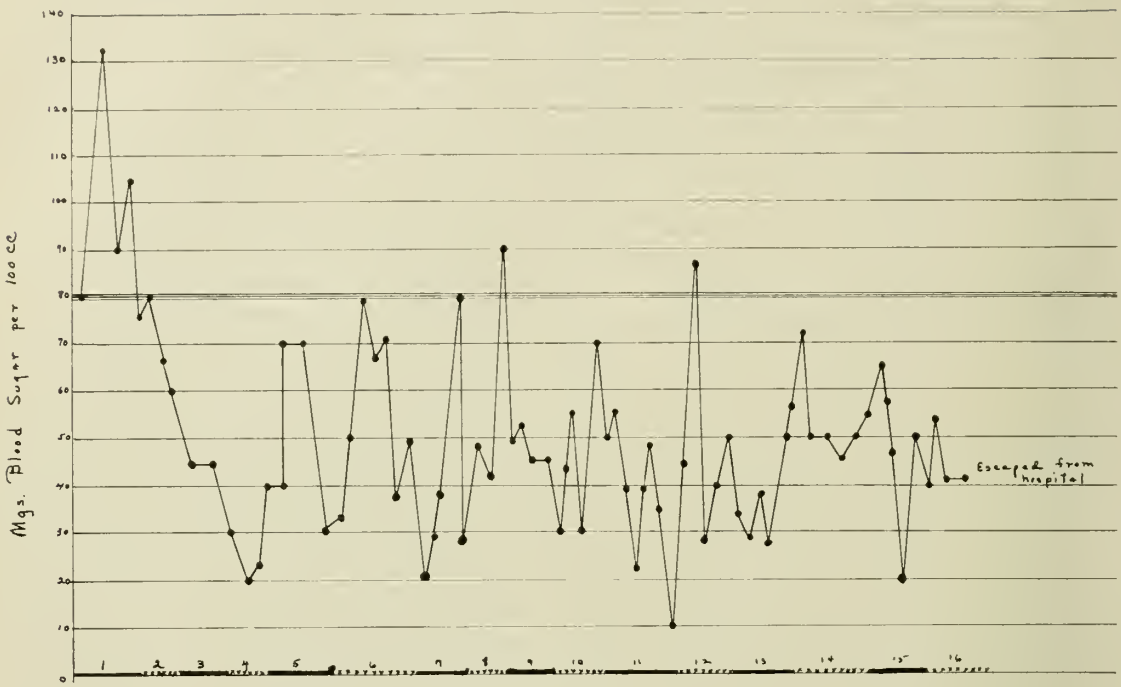
Since the introduction of insulin shock therapy in our service at the Milledgeville State Hospital 2½ years ago, 34 patients with schizophrenic psychoses have received this treatment. Complete records are available on 23 of these patients. Of this latter group, 34.78 per cent have been furloughed, 30.44 per cent have shown varying degrees of mental improvement but are still in the hospital and 34.78 per cent remain unimproved.

Several hundred blood sugar determinations made on fourteen of these patients show the presence of a chronic non-symptomatic hypoglycemia which persists for from three months to two years or more after the termination of therapy.

Technic of Treatment: After a thorough x-ray and physical examination to rule out any contraindicating physical pathology, the patient is transferred to a special treatment ward. He is treated daily except Wednesdays and Sundays, for six weeks to three months, depending on the rate of mental improvement. Daily hypoglycemic shocks of six hours duration are produced by gradually increasing intramuscular doses of regular insulin given at 6:00 a.m., and terminated at 12 noon, by a nasal feeding of six ounces of Karo syrup and eight ounces of warm water. The maintenance shock dose (100 *u*-387 *u*), is that amount of insulin which will produce unconsciousness by the end of the second hour—thus allowing the patient four hours of profound hypoglycemia. Daily blood sugar estimations are usually made at the third, fourth and sixth hours of hypoglycemic shock and at intervals for several months after termination of the treatment.

Read before the Medical Association of Georgia, Savannah, April 26, 1940.

CASE 1, MR. C. C., AGED 25, WEIGHT 128



All post-treatment blood sugar readings are made after a 12-hour fast. The Folin-Wu method of blood sugar determination is used and readings of 80-120 mg. are considered normal.

After completion of treatment the patients are assigned some form of manual work and placed on a regular institutional diet which is relatively high in carbohydrates.

All patients, thus treated, have continued in excellent health and have gained 30 to 60 pounds in weight. None has complained of any of the objective or subjective symptoms usually associated with hypoglycemia.

Two clinical cases representative of the series are reported. The first patient experienced profound reversible organic brain changes which almost proved fatal. The second patient had an uneventful treatment and at no time showed any unfavorable physical or neurologic symptoms.

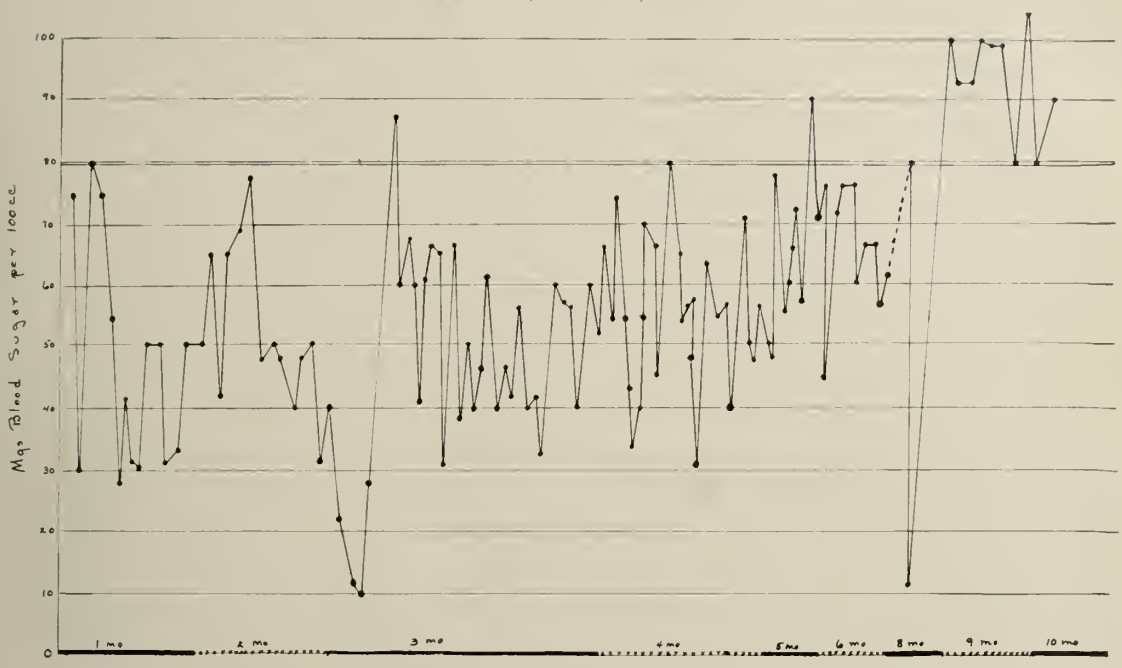
Report of Cases

Case 1. C. S., white male, 25 years of age, married. Paranoid type of schizophrenic psychosis for two years. Thought wife was untrue to him and frequently spoke of revenge against the men involved with his wife. Threatened ward physician and accused him of letting the other patients on the ward rape his wife at night. Thought the gestures and expressions of people influenced him and made him impotent and weak. Entertained some unconscious homosexual tendencies and heard imaginary voices accusing him of homosexual practices. Attacked father and brothers whom he thought conspired against him. General physical health excellent.

Insulin shock therapy begun May 18, 1939. Received a total of 13 treatments with 135 *u.* of insulin as a daily maintenance shock dose. When an effort was made to terminate the thirteenth treatment by the usual methods of glucose administration, he failed to respond and passed into a profound coma which persisted for eight days. During the first 5 days of this coma, he was agitated and delirious and was forcibly restrained in bed. Frequent convulsions responded only to intravenous sodium amytal. Following the convulsions, he showed severe cyanosis and prostration and required artificial respiration to renew his breathing. Showed marked disturbance of heat-regulating center with temperature oscillations from 97 to 104 degrees. Transient contralateral paralyses appeared which would alternately involve his right arm and left leg, and his left arm and right leg. Developed marked speech defect which made conversation impossible. Showed continuous horizontal nystagmus and hippus during greater part of this period. Voided urine and feces involuntarily.

After this initial period of acute symptoms he began to show gradual improvement in his physical and mental condition and by the tenth post-treatment day was conscious and a few days later was permitted to go for short walks about the grounds. During this period he

CASE 2. MR. E. S., AGED 30, WEIGHT 125



Months after termination of treatment

would have occasional syncopal attacks of hypoglycemia for which he was periodically given drinks containing glucose and fruit juice. Six weeks after the termination of treatment, he was sent to the nursery where he did manual work and after the first week there did not complain of syncopal attacks. He continued to work in this capacity until he escaped from the hospital four months later. At that time he appeared to be in excellent health and had gained 50 pounds in weight and showed no signs of a psychosis.

Daily treatment blood sugar estimations averaged 20 mg. at the third hour, 14 mg. at the fourth hour, and 30 mg. at the end of the sixth hour. This appreciable increase in the sixth hour blood sugar over those of the fourth and fifth hour is quite characteristic and was likely due to autonomic stimulation of the adrenals, which in turn increased hepatic glycogenolysis. When the patient was in coma during the first week after his treatment, he received large amounts of glucose, intravenously and by nasal tube, daily. Blood sugar readings during this period ranged from 66-133 mg. averaging about 30 mg.

From the tenth day after treatment was terminated until the time of his escape from the hospital four months later, he continued to show severe non-symptomatic hypoglycemia. He had a normal fasting blood sugar only 5 times out of 72 determinations. Fifty-one per cent of these readings were below 48 mg. and 18 per cent were from 10 to 30 mg. At the time of these latter readings his blood glucose content was zero, as readings below 25 to 30 mg. are due to certain non-carbohydrate copper-reducing substances called saccharoids. It is interesting to note that at no time during this period while he was performing manual work and running such low blood sugar readings did he manifest any objective or subjective symptoms of hypoglycemia. His fasting blood sugar on the morning of his escape was 47 mg. He walked 22 miles and went 28 hours without food before reaching home and on arrival showed no symptoms of hypoglycemia.

Case 2. E. S., white male, 30 years of age, married. Hebephrenic type of schizophrenic psychosis for 3 years. Showed progressive loss of interest. Was obstinate and seclusive and entertained many delusions about his wife and friends. Heard voices accusing him of shameful acts and telling him he didn't have any sense. Hoboed over country for two years and quit all his jobs because people talked about him and worked against him. At times was violent and homicidal. General physical health good.

Insulin shock therapy was begun May 17, 1939. Received 30 treatments with a daily maintenance shock dose of 100 *u* of insulin. Daily treatment blood sugar estimations averaged 22 mg. at the third hour, 15 mg. at the fourth hour, 30 mg. at the sixth hour.

Five days after the completion of his treatment he began to work in the occupational therapy department and has continued to work there daily for the past ten months. Had a normal blood sugar reading only five times in 109 post-treatment determinations. Forty-eight per cent of the readings were below 50 mg. and 12 per cent were from 10-32 mg.

During this time he was in excellent health and gained 40 pounds in weight. He was cooperative and sociable, and did not express any delusions.

Serial fasting blood sugar determinations for 20 days were made on a control group of 10 untreated schizophrenics living under identical hospital conditions. The majority of these readings were at the lower border of normal, with an occasional reading of 64-79 mg.

SUMMARY

1. A chronic non-symptomatic hypoglycemia is reported occurring in 14 schizophrenic patients, who received prolonged insulin shock therapy. This hypoglycemia is most severe in the first six months after the termination of treatment, but may persist in decreasing severity for two years or longer.

2. Though these patients have continued to perform manual work, this state has not been accompanied by any of the objective or subjective symptoms we usually attribute to a low blood sugar level.

3. All patients have remained in excellent physical health, have increased appetites and have gained 30 to 60 pounds in weight.

4. Fasting blood sugar studies on a control group of untreated schizophrenic patients would seem to indicate the presence of a hypoglycemic tendency in patients suffering with this disease.

5. No satisfactory explanation of this phenomenon has as yet been found, though many hypotheses have been considered. These patients are now being studied with special reference to the functions of the anterior pituitary and adrenal glands in carbohydrate metabolism.

The eyes of young children are more susceptible to infection than those of adults, Constance J. Foster, Great Neck, N. Y., points out in *Hygeia, The Health Magazine.* Any child with inflamed or running eyes or swollen, sticky or red eyelids should be separated from other children and examined immediately, she says. So-called "pink eye" is highly contagious, and the wash cloth and towel of a child with this disease must be reserved for his own exclusive use. A slightly red eye may be an inflammation of the iris instead of merely a "cold in the eye," and can result in a serious visual loss unless promptly treated. It is most unwise to use home remedies in an eye before and accurate diagnosis has been made by a qualified specialist.

EYE CARE DURING CONVALESCENCE

Amusements that are restful to the eyes are best for convalescent children, Constance J. Foster, Great Neck, N. Y., suggests in *Hygeia, The Health Magazine.*

"During convalescence from any prolonged or serious sickness," she points out, "the eyes are weak and in need of special protection from strain. Yet this is the time when the child is frequently given books to read or amusements that require close visual application. It would be wiser to encourage periods of rest for the eyes by reading aloud to the child or providing him with projects that do not overtax the already weakened nerves and muscles of the eye."

SCALENUS ANTICUS SYNDROME (BRACHIAL NEURITIS)

Report of Five Cases

EXUM WALKER, M.D.
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The scalenus anticus syndrome occurs with frequency, but often it is not recognized. This syndrome is the most common form of brachial neuritis, the symptoms of which can be promptly relieved.

The symptoms are the result of mechanical irritation of the brachial plexus as it passes over the first rib, between the scalene muscles (fig. 2). The contributing factors are: (1) movements of the upper extremity; and (2) local anatomic and postural relationships affecting the brachial plexus.

SYMPTOMS

1. *Pain,* most commonly in the shoulder, radiating into the arm or forearm, may radiate into any area in the distribution of the brachial plexus (fig. 1). The pain is usually aggravated by using the arm in certain positions.

2. *Numbness* (not always present), ranging from tingling to loss of sensation, occurs usually in the fingers. This symptom may be transitory, being relieved by change of position.

3. *Coldness and sweating of hand* (occasionally present).

4. *Weakness of certain muscles of upper extremity* (rarely present).

PHYSICAL FINDINGS

1. *Tenderness over scalenus anticus muscle.* Usually present, and may be the only objective finding.

2. *Slightly diminished sensation* (as tested with a wisp of cotton) in any area in the distribution of the brachial plexus.

3. *Slight atrophy of certain muscles* innervated by the brachial plexus may occur. Intrinsic muscles of hand are most commonly affected.

4. *Reflexes of arm may be altered* as compared with the opposite side.

From the Department of (Neuro) Surgery, Emory University School of Medicine.

5. *Vasomotor changes*, when present, may range from coldness and sweating, to cyanosis, blanching, or even ulceration of the fingers.

6. *Diminution of pulse volume or blood pressure reading* on the affected side, produced by rotating the head toward that side, extending the chin, and sustaining deep inspiration. When present, it is due to direct compression of the subclavian artery.

7. *Fullness of supraclavicular region.* When present, may be due to (a) dilatation of the subclavian artery, or (b) presence of a cervical rib.

Diagnosis

If, in any part of the distrbution of the brachial plexus, there is pain which is aggravated by using the arm in certain positions, and tenderness is present over the supraclavicular region, the scalenus anticus syndrome is the most likely diagnosis. If other symptoms or findings are present as listed above, the diagnosis is more certain.

Compression of nerve roots by the herniation of a cervical intervertebral disc, or by arthritis of the cervical spine, produces a very similar clinical picture, and must be differentiated. Other conditions to be considered are spinal cord tumor, syringomyelia, Raynaud's disease, subacromial bursitis, and tumor of the brachial plexus.

Treatment

Surgical section of the scalenus anticus muscle results in prompt relief of pain (fig. 3). This can be accomplished through a small incision, and requires hospitalization for only three or four days.

Report of Cases

Case 1. A physician, aged 56, was first seen Dec. 8, 1939.

Present Illness: For two months he had been having pain over the outer aspect of his left shoulder, radiating down the arm to the elbow. This pain had become progressively worse, and had spread to involve the thumb and adjacent two fingers. For five days the pain had been so intense that it had become almost intolerable.

Physical Examination: The patient guarded his left shoulder against movement or jarring. If he turned his head to the left beyond the midline, it caused severe pain. If he flexed his neck or took a deep breath, his pain was exaggerated. There was slight sensory impairment over the outer aspect of the shoulder, arm, and radial aspect of the forearm. The blood pressure was 120/70 on the left side and 140/80 on the right side. On turning his head to the left, the blood pressure in his left arm dropped to 95/70. On firm palpation over the left scalenus anticus muscle, there was slight but definite local tenderness.

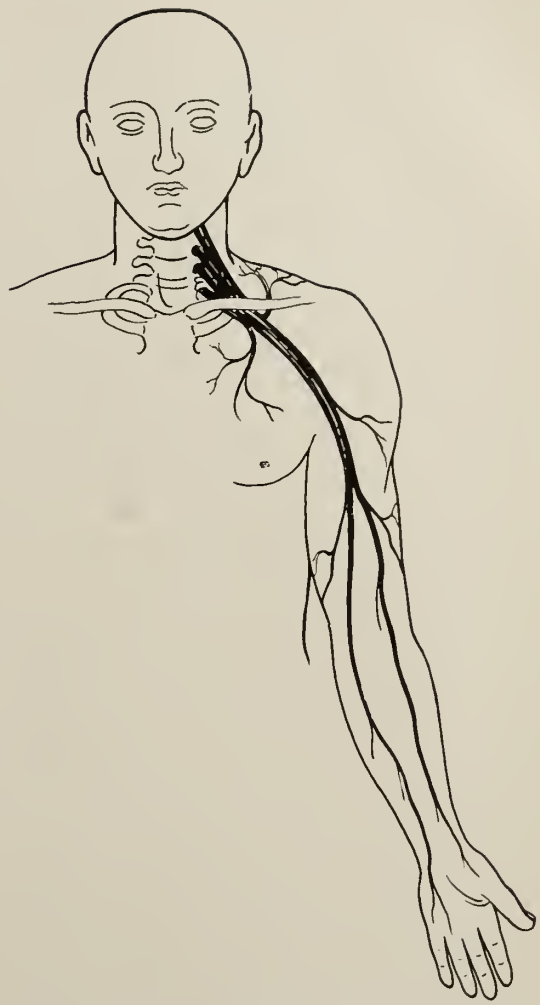

Fig. 1.
Diagrammatic representation of the distribution of the brachial plexus. Pain may be referred to any region in this distribution, depending on which nerve bundles are irritated.

X-rays of the cervical spine showed some osteoarthritic lipping between the fifth and sixth cervical vertebrae. There was no cervical rib.

Clinical Impression: Scalenus anticus syndrome.

Operation: Dec. 11, 1939. The scalenus anticus muscle was tense; it could be seen compressing the subclavian artery and the brachial plexus. The subclavian artery as it emerged lateral to the muscle was about one-third its usual size. As the scalenus anticus muscle was sectioned, its fibers retracted markedly. The compression of the brachial plexus and the subclavian artery was immediately released. The artery rolled forward, became about three times its former size and the pulsations were markedly exaggerated.

Result: The patient aroused from his anesthetic as the dressing was being applied. His first comment was

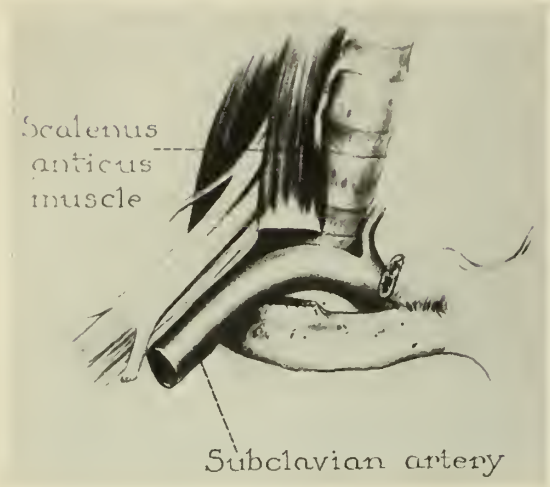

Fig. 2.
The brachial plexus and the subclavian artery are compressed as they pass over the first rib between the scalene muscles. As the shoulder girdle is moved, the brachial plexus becomes irritated and an inflammatory reaction develops.

that he could now move his head and shoulder without pain. The following day the patient stated that his pain had been completely relieved. He left the hospital on the fourth day after the operation. There has been no recurrence.

Case 2. A physician's son, aged 14, was first seen Feb. 10, 1940.

Present Illness: For two or three years he had had chronic pain in the right shoulder and arm. For ten days the pain had been severe, and there was a tingling sensation in the thumb and adjacent two fingers.

Examination: Tenderness was present over the right scalenus anticus muscle. There was slight anesthesia of the thumb and adjacent two fingers.

X-ray: No cervical ribs.

Clinical Impression: Scalenus anticus syndrome.

Operation: March 17, 1940. The scalenus anticus muscle was sectioned, releasing the compression of the subclavian artery and brachial plexus. The artery immediately rolled forward and pulsated more freely.

Result: The patient upon awakening declared that his pain was gone. He was discharged on the third postoperative day, and has remained free from pain on the right side since.

On Sept. 18, 1940, he reported that he had developed a similar pain on the left side and some numbness of his fourth and fifth fingers. The pain was not severe; so operative relief was not considered.

Case 3. A housewife, aged 31, was first seen March 4, 1940.

Present Illness: In September, 1938, she had had "neuritis" of the left shoulder and arm, lasting three to four days. Since September, 1939, she had had several recurrences of the same pain. The pain had been constant for four weeks prior to admission to the hospital. With the last attack there had developed a numb, tingling sensation in her first three fingers, greatest in the forefinger. Using her arm in an elevated

Fig. 3
The pain can be relieved by section of the scalenus anticus muscle. This releases the compression of the brachial plexus and the subclavian artery.

position, as in typing or sewing, exaggerated her pain.

Physical Examination: Pressure over the left scalenus anticus muscle caused pain to radiate into the shoulder and outer aspect of the arm. There was slight hypesthesia over the radial distribution of the left hand. The blood pressure was 108/90 on the left arm as compared with 110/80 on the right. On the left, the blood pressure dropped to 98/90 on rotating the head to the left.

X-ray: No cervical ribs.

Clinical Impression: Scalenus anticus syndrome.

Operation: March 4, 1940. The scalenus anticus muscle was sectioned.

Result: Her pain, numbness, and tingling entirely disappeared, and she was discharged four days following operation. She writes (Oct. 22, 1940) that she has remained free of pain.

Case 4. A housewife, aged 33, was first seen Jan. 14, 1941.

Present Illness: For seventeen months she had had an aching pain in the right infraclavicular region. There was also a dull ache across the back and top of the right shoulder, which occasionally extended into the arm and forearm. The pain was definitely aggravated by physical activities.

Physical Examination: Pressure over the right scalenus anticus muscle caused pain locally and with radiation to the back of right shoulder. Extending the neck or depressing the right shoulder caused pain. The fingers of the right hand were definitely colder than those of the left. The right grip was 46 and the left 70, as measured with the dynamometer.

X-ray: A small cervical rib was present on each side.

Clinical Impression: Scalenus anticus syndrome

Operation: Jan. 16, 1941. Definite compression of the subclavian artery and the brachial plexus was demonstrated. This was released when the scalenus anticus muscle was sectioned.

Result: Two days after operation the patient stated that all of her old pain had gone. Two months later she reported that she had had none of her old severe pain, including the pain in the shoulder and arm, but that she still had some soreness in her chest (infraclavicular region).

Case 5. A dentist, aged 31, was first seen Jan. 23, 1941.

Present Illness: For two years there had been increased tingling and numbness in the thumb and adjacent two fingers of the left hand. Along with this there had been a dull aching sensation in the left hand. These symptoms were definitely aggravated by using the arm.

Physical Examinaaion: Hypesthesia of the thumb and first two fingers was present. The left biceps reflex was absent. Pressure over the left scalenus anticus muscle caused pain to radiate into the neck and shoulder. Arterial pulsations were present in the left supraclavicular region, while absent on the right.

X-ray: There was slight elongation of the transverse process of the seventh cervical vertebra on the left side. There was no cervical rib.

Clinical Impression: Scalenus anticus syndrome.

Operation: Jan. 27, 1941. The left scalenus anticus muscle was sectioned, releasing the compression of the subclavian artery and brachial plexus.

Result: Complete relief of pain and tingling sensation. The numbness had almost completely disappeared by the time of discharge on the third postoperative day. On Feb. 5, 1941, he wrote that the result was "perfect with the exception of a small tingly area on the ball of my thumb."

Summary

The scalenus anticus syndrome is the most common form of branchial neuritis, and is due to mechanical irritation of the brachial plexus as it pases over the first rib between the scalene muscles.

Surgical section of the scalenus anticus muscle results in prompt relief of pain.

Five cases are presented as typical examples.

EATING ICE

"Many persons experience bowel cramps and gas in the abdomen when they eat or suck ice." *Hygeia, The Health Magazine* says in answer to an inquiry as to wheather eating or sucking ice is injurious to the health. "Especially in hot weather, or after strenuous exercise, taking large amounts of any ice-cold liquid is not advisable. As long as no particular symptoms are observed the problem would seem to be one of personal taste. Some persons can tolerate moderate amounts of ice without harm."

Names and addresses of officers and committees are printed on pages 367-369-371. Next annual session will be held in Augusta, April 28, 29, 30, and May 1, 1942.

BLACKHEADS AND PIMPLES

An Attitude Toward Acne Vulgaris

Herbert S. Alden, M.D.
Jack W. Jones, M.D.
Atlanta

The words "blackheads" and "pimples" are used in this title to emphasize the point that in reality, they are the clearly descriptive lesions which compose the clinical picture which we in superior tones label "acne vulgaris." Blackheads and pimples are what the patient *has* and what he wishes to be rid of, and so it would seem that all of us would be less liable to confusion if we would come down to earth and treat what the patient complains of, rather than what the textbooks in graciously scientific terms call "acne vulgaris": a disease of adolescence probably caused by a disorder of the endocrine glands associated with excessive seborrhoea and the production of comedones." Thus, if we may, we should like to discuss in a practical every day way what we can do for people who have blackheads and pimples, and so will attempt no latinized classification, such as acne simplex, acne indurata, acne pustulosa or acne vulgaris, but just simple pimples and blackheads, mild, moderate and severe.

What does the patient ask of you? Usually three questions: First, what is the cause of my pimples? Second, can you cure them? Third, how long will it take? Let us take them up in this order and attempt some answers.

What is the cause of blackheads and pimples? This question, like that often asked by physicians, "What is *the* treatment of acne?" cannot be simply answered, because the causes are numerous, some vague, many inevitable and nearly always, all highly individual. However, the causes may in general be considered under five broad heads, viz:

(1) Heredity.
(2) Adolescence.
(3) Seborrhea.
(4) Comedones.
(5) Infection.

Read before the Fulton County Medical Society, Atlanta, Feb. 6, 1941.

The first four may be considered more or less as inevitable. The patient with pimples is unfortunate in his choice of ancestors, but he must accept and tolerate both their gifts and faults. He must pass through adolescence, unless he be a eunuch, and in adolescence he in all probability will have a seborrhea and some blackheads. Infection follows in the train of seborrhea and the comedone, and results in the pimple. Then, if heredity and adolescence are inevitable, and seborrhea and the comedone are inevitable, you may say, "What is the use of this discussion? We can do nothing about it." But you can. It is obvious that you are not taking care of a disease, you are coping with a condition, and while you cannot prevent adolescence except by castration, you can guide it in the best possible direction and thus arrive at a destination with less accident and less scarring of both skin and emotions.

Of the physiopathology of seborrhea we know very little. Like sweat, the secretion of sebum increases in heat or in exercise, but especially so in the vasomotor stimulation of emotion; thus, sex consciousness, shyness, sexual stimulation without satisfaction, fear and embarrassment—all concomitants of adolescence—may be productive of the after-dance or weekend necking party crop of pimples that so often plague our youth. We know that sebum may vary greatly in its lipoid and water content, ranging from a liquid oil to a soapy cake, and its content of dried cellular material may vary much from time to time in the same patient—but *why* we know not.

The blackhead is a plug of cellular debris and oil, and the inspissated sebum beneath it is a generous mixture of the acne bacillus, the bottle bacillus of Unna (supposed cause of seborrheic dermatitis) staphylococci and streptococci, and often a lowly innocent arthropod, the demodex folliculorem. All of which seem to be more the *result* of the blackhead rather than the cause of it. Blockage of excretion, increase in the bacteria, inflammation and pus are always eminent in this situation and so the frequent result is the familiar pimple or acne.

In essence, the following series of events occur in the formation of pimples and blackheads (and this, by close observation can be demonstrated in any case of moderately severe acne):

(1) Seborrhea (as a result of heredity and adolescence).

(2) Inspissation or cellular debris and oil to form a plug (blackhead).

(3) Bacterial growth in the ideal alkaline media.

(4) Suppuration in an active plugged sebaceous gland resulting in a pus-filled cyst (pimple); and

(5) Manipulation, surgery or just squeezing, rupture and then scar.

There is an endless repetition of this cycle made worse by fear, worry, emotional stimulation, the use of cosmetic creams and oils and often by medical and beauty parlor manipulation. This is the natural history of acne and it is the answer we give to the patient's question, "What is the cause of acne?"

Now the second question — "Can you cure blackheads and pimples?" After the foregoing explanation it should be obvious that you cannot "cure" adolescence. Acne and adolescence are almost synonymous and you cannot *treat* it as a disease, but must handle it as a physiologic living problem. Now if you mean by "cure" the relief of pimples and blackheads as an embarrassing and uncomfortable episode of a delightful but must-be-tolerated period of life, then yes you can do much to releive the situation in the early stages, often completely relieve it in the latter years of adolescence, and always you can help. But the course is not easy, it requires persistent, often prolonged care, sympathy, tact, friendliness and a willingness to admit that one cannot have his cake and eat it, too.

The alleviation of blackheads and pimples is a highly individualized procedure, and despite all our efforts at a generalization of the numerous procedures that may be used, none of these treatment maps seem satisfactory. Generalizations in the use of medical methods for acne have been the

sign and stigma of our medical literature and have varied with the wide up and down swings of our intellectual climate of the period. These generalizations are filled with advice in such empty phrases as, "build up the general health and resistance," "fresh air," "good food and sunshine," "the use of adequate measures for the relief of constipation," "intestinal autointoxication should be avoided," "sweets and fried foods should be avoided" and "foci of infection should be removed." We hear such sublime advice that the "endocrine system should be investigated" and in some obscure way "regulated." We are told of the virtues of "vaccines" made out of every conceivable bacterium, even to the "autogenous" variety — as if one could shoot ducks in the dark with any hope of success.

We have all read this evasive sort of therapeutic advice in articles and textbooks about many diseases and acne is no exception — the difficulty is that many attempt to follow it and the results are disappointing, therefore, we hear of doctors neglectfully and resignedly telling these bepimpled youngsters, "It's only acne, there's nothing you can do except outgrow it." Add the tyranny of time, to the consciousness of being repellant, to the false ideas, medieval and victorian but still believed, such as "nice people do not have acne," "clean people do not have acne," "it's bad blood working its way out," "it's telltale evidence of masturbation," and you have a heavy burden for your adolescent. These superstitions outrage self-respect and pride and no wonder they say "Gee, if I could get that signboard off my face!"

Since most of our clinical evidence seems to imply that we are dealing with a mechanically altered physiology in the midst of an inevitable endocrine explosion, it seems logical that the use of mechanical methods should bring some measure of relief. In our experience it does, but first let us look at some of the internal therapeutic measures that are recommended.

Vaccines have been employed in acne probably more than in any other disease, and the general opinion among dermatologists is that they are not only painful but unimpressive. What little benefit that may occur might come from an increase in metabolism and a spoilage of appetite. We believe vaccines given to acne patients only help the manufacturer.

The consideration of nutrition and acne brings up the generalization broadly covered in the old terms "strumous" and "chlorotic" and the newer term "avitaminosis." These conditions do exist in acne patients as they do in others, and are individual medical problems, but they should not be excuses for dosing the bepimpled girl on cod liver oil in quantities that only a cow could utilize. Nor is it an excuse for gorging her on milk and fats, at the expense of good carbohydrates in an effort to gain weight, and have more acne for your trouble. This latter is especially true since there is some good evidence to show that an excess of fat and an alteration in the fat metabolism may have some bearing on the severe grades of acne.

Drugs internally are as a whole of doubtful value and iodine and bromides positively bad since they are often secreted by the sebaceous gland and often within themselves produce acneform eruptions. Notable exceptions are iron in a concomitant anemia, and drugs of the sulfanilamide series in rampant secondary infection.

Since it is well known that eunuchs and castrates seldom have acne or for that matter have adolescence — and that acne and adolescence are concomitant, obviously we are dealing with an internal glandular problem. But it seems to be an excess of the secretion of the gonad and gonad-stimulating substances. While we may be proud of our substitution therapy in lack of growth with gonadotropic hormones, no one knows yet what to do about an excess other than to remove it surgically. In agreement with this is the universal failure of these much used and more often abused internal-gland medications in acne. Furthermore they may be harmful to young people. We do not use them. A notable exception to this is thyroid medication. There are some adolescents who have many of the signs and symptoms of hypothyroidism such as

thick oily skin, lassitude, pallor, gain in weight, fatigue and low basal metabolic rate. These patients do well on very careful thyroid medication. This, however, is not a general symptom complex of acne but is an individual medical problem.

In a land of ease and comfort, where we must have an "economy of plenty," dieting of all sorts, good and grotesque is rampant, especially since we must be slim to fit our storebought clothes. But the patient with acne suffers more than all the others. Being young he cannot choose his food at home, and pestered by the corner drug store he slips his dietetic wants abroad. He becomes bloated on milk and butter at home, chocolate milk, and milk candy at the corner drug store, and is filled with milk at the school lunch. Where is the room for vegetables? Stop the intake of the much needed carbohydrates which so cheaply fill a gap and what do they have to grow on? Especially are these questions pertinent in acne, in which there is no proof of the evil effects of carbohydrates and very little proof of the evils of fats. It must be admitted that in some instances diet seems to affect the cyclic occurrence of pimple explosions, but so do emotions, and so does fatigue, and so does menstruation. It has seemed to us that youth often (as do adults) needs a reorganization of dietary habits, but not so often a removal of wholly unrelated groups of foods, that if adhered to religiously would result in partial starvation.

The purpose of local mechanical treatment is to rid the seborrheic skin of the plugging and blocking of the mouths of the sebaceous gland and rid the gland of its accumulated lipoid and bacteria. We therefore advise an incredible amount of face washing and scrubbing — three to five times a day. At night we insist upon the use of an astringent and mildly keratolytic application such as lotio alba (white lotion) of the pharmacopoeia. These two things alone if persisted in will often result in a gradual "washing-out" of the blackheads, allow good drainage and bring relief. This method is slow and as long as seborrhea is present, must be continued to prevent trouble. The use of ultra violet light, especially the cold quartz type, aids this by producing a mild exfoliation of the keratin layer of the skin. Some soaps, especially in localities with hard water, leave an alkaline calcium film on the surface and with the natural alkaline sebum, produce local tissue destruction and encourage bacterial growth. It is therefore often wise to prescribe an acid application, in a fat solvent base after washing and during the day. Such an application contains 1 cc. of concentrated hydrochloric acid, 10 cc. each of acetone and ether to 100 cc. of alcohol. The expression of the blackhead with a soft metal remover at infrequent intervals, very, very gently performed, is wise. But it is easy to be a "bull in a china shop" and have your patient (or victim) emerge with red and bloody complexion. This makes scars inevitable and easily instills a desire in your patient to go and do likewise—an action that should always be prevented, if possible. Except in rare instances it should be obvious that oily preparations should not be used, and this applies especially to cosmetic creams and cream rouge.

The manner and method by which these applications and treatments are presented is important. Youth is dramatic as well as curious and your treatment must be tied to good reason and also be dramatic, but not stagy, to get their full coperation.

X-ray treatment for acne is our single best weapon and certainly the most spectacular, but it is only so in proportion to the judgment with which the patient is chosen for its use, and the judgement which is used in its application. X-ray is not *the* treatment for acne, it often requires some of the local applications oulined above to go with it. If given well, it produces a reduction in the quantity of seborrhea by its specific action on the sebaceous epithelium of the sebaceous gland—we have no desire to produce atrophy of the gland. We therefore recommend that it be given in small, sub-erythema, unfiltered doses, at regular intervals over a ten to fifteen week period. The total dose should never exceed three erythema units or approximately 1000 r.

(Continued on Page 373)

WILLIAM HERMAN MYERS
1878-1941

Bill Myers is dead. God's finger touched him and he slept. But the spirit of Bill Myers marches on. His life and works are doing good throughout Georgia and the Nation.

To know Bill Myers was to love him—to trust him implicitly. He was faithful—to his family, his friends, his profession and his country. He was honest, beyond most men, in all things. He was charitable in thought and deed. He loved his fellow man and especially his fellow doctors.

Though Bill Myers held many elective positions of honor and trust he never opposed a fellow member; indeed, when he learned of opposition he nominated his opponent, sincerly and without mental reservation. He was cheerful without false front. He was quick to praise, slow to criticism and not easily driven to anger. His presence and wise counsel were comforting and helpful in trying situations. His life exemplified the Ideal Physician.

The body of Bill Myers lies buried in beautiful Bonaventure but he lives and his light is shining brightly in the hearts of all those whose privilege it was to know him.

Allen H. Bunce

THE JOURNAL
OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.
AUGUST, 1941

WILLIAM HERMAN MYERS, M.D.

"Bill Myers is dead" was the news contained in a recent telegram addressed to the office of this Association. No news could have stirred the emotions of most of us more than this. A void has been created in the ranks of the Medical Association of Georgia by the passing of one of the State's most distinguished physicians and citizens, a man with much learning, with an abundance of common sense, with culture and with a purpose.

To have known Bill for almost three decades was indeed a privilege, and no one could know him without loving him for what he was. Born in old Kentucky, in 1878, Myers early learned the principles of life — "live and let live" — and his obligation to God. As time passed, and with increased opportunities for learning, his vision broadened. After being well-grounded in the "three r's" on land where Daniel Boone sought better hunting for wild game, and where Abraham Lincoln obtained the activating substances which made him one of America's greatest men, Myers migrated to the University of Tennessee where he received his degree of Doctor of Medicine. Later he served an internship in a hospital at Nashville. Still later he joined the medical corps of the United States Army and was sent to the Philippines. He resigned his commission in the Army to enter private practice in Savannah, where he became a successful surgeon.

Dr. Myers' quest for medical knowledge, and a broader understanding of the humanities, led him into many fields of endeavor, but his principal effort was directed toward the betterment of his chosen profession—medicine. He was an active member of his local medical society and had occupied every office in that society. For many years he represented the First District as Councilor of the Medical Association of Georgia, and for twelve years he was one of the three delegates from the Association to the American Medical Association. In 1938 he was honored with the position of President-Elect of the Medical Association of Georgia, and in 1939-40 was President.

"Well done, thou good and faithful servant," and may your soul rest in peace.

RECENT ADVANCES IN ENDOCRINOLOGY

One of the most recent steps forward in the treatment of glandular disorders is the success with synthetic ovarian hormone orally. For a number of years the experimental laboratories were years ahead of the clinicians. New substances were isolated and tried on the various experimental animals, but the effect on man was late in being studied. It is now quite generally recognized that the successful use of a substance on an experimental animal does not prove that it will be successful in the human being.

Although for the past ten years clinics and endocrinologists have been employing glandular products orally (thyroid, pituitary and ovary among others), the statements made by a few prominent investigators discouraged many physicians from the oral use of gland products. This was also due to low potency and great variation in potency of similarly labelled products. The advent of various synthetic female sex preparations in oil was so effective in the human that it was only a question of time before the oral route would be tried. Sufficient evidence has now been published, together with the unreported experience of many investigators, to show that *Stilbesterol*, the new synthetic female hormone, is very potent by mouth. The dose should be small, from 0.10 mg. daily upwards. Side actions, such as nausea and vomiting are often encountered from too high a dosage, but the results seem to justify the careful use of this substance. Recently, enteric-coated Stilbesterol has been tried for investigational use only. Those who have used

this improved stilbesterol are strong advocates of this over the plain stilbesterol. Few if any side actions were noted and the patients were markedly improved. In a series of 30 cases just studied by the writer only two failed to respond. It is only fair to warn, however, that the use of this substance must be made only under close supervision of the physician.

The indications for the use of stilbesterol are those of the menopause chiefly; hot flushes, emotional instability, weakness, despondency, etc. In cases of definite hypo-ovarianism aside from the menopause, this substance is also of great value, as in chronic mastitis.

Oral therapy with thyroid has been recognized since the turn of the century, since the first feeding of raw thyroid glands of sheep in sandwiches to patients with myxedema. However, absorption by mouth has been found effective with other gland products also. Today we use suprarenal gland substances orally with good effect as well as testosterone. There is yet some difference of opinion as to the potency of other glandular products by mouth. This appears to be a question of dosage rather than method of administration.

The value of oral therapy over other methods needs no explanation. It is cheaper, more convenient and painless. The prolonged use of glandular extracts in oil is not to be desired. Cases of allergy to certain of the oils used have been noted. Further, it is impossible to state as yet the end result of placing oil in quantities such as numerous injections would require in the tissues.

One must always bear in mind when using the higher dosage substances the danger of overdosage. Intermittent therapy is to be preferred to continuous in order to permit periods of observation. Furthermore, it should be remembered that the improvement rarely stops at the point where treatment ends, especially in younger persons, and the momentum acquired may result in overstimulation or overdevelopment. This is as unfortunate as the original condition and has been produced by carelessness on the part of the prescriber.

Synthetic female hormone is also employed in the form of an emollient. This is calculated to have a 50 per cent absorption through the skin if rubbed sufficiently long. Non-hairy areas are advised. This ointment is slightly irritating to the skin of some patients, causing a papular rash with itching. It is most effective when combined with some other form of endocrine therapy. Several experiments to determine the effect of this salve on excessive hair growth in the female have proven our ignorance in knowing how to treat this condition. A few cases were markedly improved, to the point of a cosmetic cure; but the majority were either not benefited at all or only partly. The most difficult cases are those who have shaved or plucked the hairs for years. In the few cases successfully treated, the process was the same, i.e., after a few weeks the hairs became bleached and dead-looking then brittle and finally break off. Then a new hair slightly less heavy grew in its place. This also bleached and broke off. The third hair to appear was the usual fine, light fuzz usually seen on the skin. After a number of weeks or months without treatment the hair growth tends to recur. This is to be expected because the cause of the hair growth is either a tumor in one of the glands or a hyperplasia which, of course, is only temporarily antagonized by the treatment.

Surgery is advancing rapidly in aiding glandular therapy. If an adrenal cortical tumor can be properly supposed, removal of such a tumor results, in some cases, in disappearance of excessive hair growth. Surgery of the thyroid gland is rapidly becoming safer, and fewer patients are being operated on needlessly. Removal of, or surgical interference with, the ovaries is more seriously considered than ever before, every effort being maintained to conserve glandular function. The startling recovery following removal of parathyroid tumors or pancreatic tumors indicates the value of proper surgery in glandular disorders. Positive diagnosis, however, should precede any treatment.

J. K. Fancher, M.D.

CAN THE PRINCIPLES OF MEDICAL ETHICS BE STREAMLINED AND MODERNIZED?

The immortal compositions of some of the world's greatest musicians are being jazzed, swung, mutilated, emasculated, rhythmatized after the musical style of the African jungle, all after the fashion of streamlined youth. World diplomacy, following modern propaganda methods, is more and more abandoning veracity. Modern militarists and politicians are becoming more mercenary, murderous and merciless. A lot of so-called free-thinkers, because foundations and fundamentals seem to be slowly slipping from under society, are joining some few preachers in trying to modernize and streamline the Ten Commandments. Labor and capital are having their ins and outs with cupidity, tricky dealings, selfishness and dishonesty handled with the prestidigitator's touch for the fooling of the multitudes.

While the veil of mysticism and secrecy has been stripped from the ancient practice of the medical art and development of the medical science, many of us stand stark naked before the judgment of our fellowmen as it regards our worthiness, our efficiency, our wisdom and our conduct; and that judgment now is more severe than ever before in the history of the profession. There are those who are trying to "pack" the Supreme Court of the Human Conscience with new judges sympathetic with the "New Deal" in human conduct; but there are hoary traditions of truth and justice and a devotion to ethics still existing in the grand majority of both the elder and younger generations of medical men.

Your Parliamentarian is no saint. He has his little jealousies, his monumental human frailties and, above all, his recognition of his professional limitations. He does not set himself on the seat of judgment, nor constitute himself an arbiter of human conduct or of the spirit of medical ethics; but, endeavoring to live within at least the letter of the law, he can be offended by gross breaches of the written code.

Imagine his surprise at having had referred to him a display advertisement 2½ by 5 inches clipped from a Georgia newspaper, in which is set forth in display type the fact that "Every Wednesday morning from June 1 to September 1" tonsils will be removed at the price of $15.00 cash. May your writer call attention to Chapter III, Section 4 of the American Medical Association's Principles of Medical Ethics, a part of which reads as follows: "Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communication, is unprofessional."

Men, let's not "go commercial!" Let's leave this sort of stuff to bargain stores run by graduates of European ghettoes and their descendants! Do your charity work and your small fee work for deserving and suffering humanity quietly, unostentatiously, humbly; and let its worth speak for you. Cut-throat competition and medical or surgical "job-lotting" cry aloud the word "shoddy;" maybe not in skill or results of the work, but in a torn and tattered reputation among your nobler fellows.

J. W. SIMMONS, M.D.

A NEW JOURNAL ON MEDICAL CARE

The widespread need for more adequate medical service voiced by President Roosevelt in his recent message to Congress will now be dealt with in a special periodical, MEDICAL CARE, a quarterly, the first issue of which has been published. The new journal is a nonprofit enterprise under the auspices of the Committee on Research in Medical Economics, Inc., 1790 Broadway, New York, with Michael M. Davis, chairman of this committee, as its editor. Williams and Wilkins Company are the publishing agents. Its stated purposes are "to disseminate information concerning the economic and social aspects of medicine, to promote a scientific approach to the subject, and to stimulate practical action by the professions and the public in their common interest. The views and interests of the professions that furnish medical care and of the people who receive it are equally

to be considered.

Among the articles in the first number are: "British Medical Arrangements for the Care of Air-Raid Victims," by Dr. George F. McCleary, formerly of the British Ministry of Health; "Preparedness through Fitness," by Dr. Nathan B. Van Etten, president of the American Medical Association; "A Health Program for California Farmers," by Von T. Ellsworth, director of the California Farm Bureau Federation; "The Costs of Physicians' Services under a Voluntary Health Insurance Plan," by Helen Hershfield Avnet of the Group Health Cooperative, New York. One of the editorials urges adequate medical care for industrial workers in defense industries, as a means of promoting productive efficiency.

OGLETHORPE UNIVERSITY MEDICAL COLLEGE

Announcement has been made by Oglethorpe University, Oglethorpe University, Georgia, of the opening of its medical college. In the announcement the following statements were made:

"For some years the Board of Directors of the University has had the establishment of a School of Medicine in Atlanta under consideration. The great need for doctors in the new army in the present emergency as well as the steady decrease in the number of physicians in the country at large and especially the vital need of medical service in Georgia to which the Governor of the State has recently directed the attention of the commonwealth, have all united in bringing the Board to a final decision. The new College of Medicine will be a standard school, fully accredited under the laws and by the authorities of the State of Georgia. While it is being founded especially as a Georgia school for Georgia physicians, it will accept applications for admission from all parts of the world.

"Dr. John L. Jacobs has been elected Vice-President of the University in charge of the scientific work of the institution and will proceed at once to the organization of courses, the admission of students and the preparation of classes. Dr. Jacobs is an A.B. of Oglethorpe University, a B.S. of Harvard University and an M.D. of Harvard Medical College.

"The expenses of the student attending the Oglethorpe Medical College will be moderate. The total charge for tuition, board and room rent and all college fees, such as matriculation, laboratories, library, infirmary, etc., has been set at $927.00 per year of approximately nine months. A tuition fee of $600.00 per academic year will be made to students not boarding and rooming on the campus. There will be no other special charges or fees. First year men whose homes are not in Atlanta will be required to room on the campus. The courses will be those usually taught in standard medical colleges. . . . Women will be admitted upon the same terms as men."

The Journal would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

MEDICAL ASSOCIATION OF GEORGIA

Ninety-Third Annual Session

Augusta

April 28, 29, 30, and May 1, 1942

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J. C. Patterson ..... Cuthbert
Grady N. Coker ..... Canton
George A. Traylor ..... Augusta
Frank K. Boland ..... Atlanta

Medical History of Georgia

Frank K. Boland, Chairman ..... Atlanta
Joseph Krafka ..... Augusta
Cecilia Mettler ..... Augusta
George A. Traylor ..... Augusta
Olin H. Weaver ..... Macon
J. Calvin Weaver ..... Atlanta

Cancer Commission

J. L. Campbell, Chairman ..... Atlanta
Lee Howard ..... Savannah
A. J. Mooney, Sr. ..... Statesboro
A. D. Little ..... Thomasville
R. F. Wheat ..... Bainbridge
R. C. Pendergrass ..... Americus
W. F. Jenkins ..... Columbus
Kenneth Hunt ..... Griffin
Enoch Callaway ..... LaGrange
E. L. Bishop ..... Atlanta
J. J. Clark ..... Atlanta
C. C. Harrold ..... Macon
N. J. Newsom ..... Sandersville
David L. Wood ..... Dalton
Z. V. Johnston ..... Calhoun
B. H. Minchew ..... Waycross
S. T. R. Revell ..... Louisville
Charles R. Andrews ..... Canton
Hartwell Joiner ..... Gainesville
W. H. Roberts ..... Augusta
H. E. Talmadge ..... Athens

Executive Committee, Women's Field Army of the American Society for the Control of Cancer

J. L. Campbell, Chairman ..... Atlanta
E. L. Bishop ..... Atlanta
J. J. Clark ..... Atlanta
Robert C. Pendergrass ..... Americus
Enoch Callaway ..... LaGrange

C. C. Harrold ..... Macon
T. F. Abercrombie ..... Atlanta

Orthopedics

Fred G. Hodgson, Chairman ..... Atlanta
T. P. Goodwyn ..... Atlanta
H. M. Michel ..... Augusta
F. Bert Brown ..... Savannah
J. Hiram Kite ..... Atlanta
L. H. Muse ..... Atlanta

Ophthalmology

Grady E. Clay, Chairman ..... Atlanta
S. J. Lewis ..... Augusta
E. N. Maner ..... Savannah
Francis B. Blackmar ..... Columbus
H. M. Moore ..... Thomasville
J. R. Childs ..... Atlanta
Herschel C. Crawford ..... Atlanta

Syphilis

Harold P. McDonald, Chairman ..... Atlanta
J. T. McCall ..... Rome
Roy R. Kracke ..... Emory University
J. Z. McDaniel ..... Augusta
Willis P. Jordan ..... Columbus
Wallace Bazemore ..... Macon
John C. Keaton ..... Albany
Harry Righton ..... Savannah
R. F. Wheat ..... Bainbridge
L. W. Pierce ..... Waycross
Hartwell Joiner ..... Gainesville
R. H. McDonald ..... Newnan

Industrial Health

Thos. P. Goodwyn, Chairman ..... Atlanta
J. W. Simmons ..... Brunswick
C. F. Holton ..... Savannah
W. W. Battey ..... Augusta
W. W. Chrisman ..... Macon
A. N. Dykes ..... Columbus
J. Harry Rogers ..... Atlanta
R. E. Newberry ..... Atlanta
C. W. Roberts, ex-officio ..... Atlanta

Clinical Pathology

A. J. Ayers, Chairman ..... Atlanta
Roy R. Kracke ..... Emory University
Walter W. Daniel ..... Atlanta
A. R. Rozar ..... Macon
D. R. Venable ..... Columbus
R. Lee Rogers ..... Gainesville

Tuberculosis

Champneys H. Holmes, Chairman ..... Atlanta
Enoch Callaway ..... LaGrange
H. C. Schenck ..... Atlanta
C. D. Whelchel ..... Gainesville
W. C. Cook ..... Columbus
R. C. McGahee ..... Augusta
E. F. Wahl ..... Thomasville
R. V. Martin ..... Savannah
C. M. Sharp ..... Alto
H. C. Atkinson ..... Macon

Scientific Exhibit

W. F. Hamilton, Co-Chairman ..... Augusta
Francis Parker, Co-Chairman ..... Emory University
Robert Drane ..... Savannah
Lee Howard ..... Savannah
B. E. Collins ..... Waycross
Joseph Yampolsky ..... Atlanta
Wm. F. Lake ..... Atlanta
Edgar R. Pund ..... Augusta
John E. Walker ..... Columbus
Helen W. Bellhouse ..... Thomasville
R. N. Johnson ..... Rome

Woman's Auxiliary

James N. Brawner, Chairman ..... Smyrna
Eustace Allen ..... Atlanta
R. V. Schultz ..... Atlanta
Ralph H. Chaney ..... Augusta
H. G. Banister ..... Ila
Lee Howard ..... Savannah

Post-Graduate Study

G. Lombard Kelly, Chairman ..... Augusta
Russell H. Oppenheimer ..... Emory University
Richard Torpin ..... Augusta
Olin S. Cofer ..... Atlanta
H. C. Sauls ..... Atlanta
Roy A. Hill ..... Thomasville
W. F. Reavis ..... Waycross
J. C. Patterson ..... Cuthbert

Georgia State Medical Association (Negro)

M. T. Harrison, Chairman ..... Atlanta
W. E. Storey ..... Columbus
R. C. Maddox ..... Rome
J. F. Hanson ..... Macon
H. H. Allen ..... Decatur

Pediatrics

W. W. Anderson, Chairman ..... Atlanta
A. J. Waring ..... Savannah
Frank Schley ..... Columbus

Appendicitis

T. C. Davison, Chairman ..... Atlanta
J. K. Quattlebaum ..... Savannah
Charley K. Wall ..... Thomasville
J. C. Patterson ..... Cuthbert
Fred F. Rudder ..... Atlanta
F. B. Rawlings ..... Sandersville
B. Lester Harbin ..... Rome
Kenneth McCullough ..... Waycross
R. L. Rogers ..... Gainesville
S. D. Brown ..... Royston
Enoch Callaway ..... LaGrange

Awards

Wm. R. Dancy, Chairman ..... Savannah
T. S. Gatewood ..... Americus
Mather M. McCord ..... Rome
Ralph H. Chaney ..... Augusta
W. F. Reavis ..... Waycross

(Continued on Page 371)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE INCIDENCE OF SPOTTED FEVER IN GEORGIA

As a result of the occurrence of a very severe case of Rocky Mountain spotted fever in the City of Atlanta during the month of May, 1941, I felt that it would be timely to bring to the attention of the physicians of Georgia the fact that we do have existing in our state infected ticks which from time to time succeed in transmitting this disease to some of our people. For a number of years, an occasional case of this disease has been reported to the State Department of Health. However, in 1939 three proven cases were reported and in the following year, fifteen cases, all of which were proved by animal inoculation, made their appearance.

Since we have coexisting a large number of cases of endemic typhus fever, there immediately arises a very difficult problem in the differential diagnosis between these diseases. Particularly is this true of most of us whose experience with either or both of these diseases may be limited. In order that our thinking about Rickettsial diseases may be intelligent, I believe it worthwhile to reproduce the classification of these diseases by Doctor Hans Zinsser.

I. *Spotted Fever Group.*—In this group there are a number of varieties, all of which cross immunize and are conveyed by ticks. In all of them the histopathology is of the thrombo-angiitic type, often with necroses; and in all of those so far studied (Pinkerton, 1929) the rickettsiae may have an intranuclear position.

The most important of this group are:

Rocky Mountain Spotted Fever — Western strain—D. andersoni—Wood tick. Eastern strain —D. variabilis—Dog tick.

Sao Paulo Typhus — Monteiro — extremely virulent—*Amblyomma cajennense* (tick).

Fievre Boutonneuse—Mediterranean countries —lesion at site of bite and adenopathy.

African Tick Fever—Cape to Northern Rhodesia—*Amblyomma hebraeum.*

II. *Tsutsugamushi Group.*—All of this group are conveyed by *Acarina* or mites. Cross immunity exists within the group, but relationship with other groups is unsatisfactory in this respect, owing to difficulties of animal experimentation. The most important of this group are:

Tsutsugamuchi Fever—Japan and Formosa—host is house rat and field mouse. This disease is identical with the pseudo-typhus of Sumatra.

Rural Typhus of Malaya—Closely related but not identical with Tsutsugamuchi. No lesion at site of mite bite. Host is wild brown rat.

III. *Typhus Group.*—In this group the vascular histopathology is an angiitis without invasion of the deeper layers of the vessels, and without the thrombonecrotic lesion seen in the spotted fever group. The rickettsiae are intracytoplasmic (Pinkerton, 1929) and do not appear to invade the nuclei. The most important of this group are:

Epidemic Typhus—Body louse.

Endemic Typhus—Flea.

Tabardillo—Body louse.

From this classification we see that Rickettsial diseases are world-wide in their scope, and that they are transmitted by at least four different vectors; namely, ticks, fleas, mites and lice. In our state we are concerned only with two of these diseases; namely, endemic typhus and Rocky Mountain spotted fever. In so far as we know at the present time, there are only two vectors with which we have to deal: the rat flea in the transmission of endemic typhus and the dog tick, Dermicenter variabilis, in the transmission of spotted fever.

While I shall not go into a discussion of all of the various factors which should be considered in the differential diagnosis of these diseases, I do believe it worthwhile to point out that the pathologic changes in Rickettsial diseases are found in the blood vessels. This is a most important point which should always be remembered when one is planning treatment. In endemic typhus fever the incubation period is twelve to fourteen days. The chief point in the differential diagnosis of these diseases is to remember that the rash of endemic typhus appears about the fifth day, usually on the chest and abdomen and the medial surface of the arms. There may not be any further spread but, not infrequently, spread does take place involving the whole body, including the feet and palms, the soles frequently being excepted. An important point is that the macules do not disappear on pressure. The macules are small. Leukopenia is usually present, although a normal count is not unusual.

In the case of Rocky Mountain spotted fever, the incubation period is usualy three to five days; in the milder cases it may be three to fourteen days. There is frequently a history of tick bite. The onset is usually more sudden and the patient usually appears sicker than in endemic typhus. A typical large macular rash usually appears from the second to the fourth day, appearing first on the wrists and ankles and spreading in centripetal fashion. The eruption spreads rapidly over the body, being usually less marked on the abdomen and face, but

involving the palms of hands, soles of feet, scalp, and sometimes the eyelids and mucous membranes of the mouth and throat. In the early stages the color disappears on pressure, but later does not, as the exanthem becomes darker and takes on a bluish tinge. There is usually a leukocytosis of 12,000-15,000.

The most characteristic differential point is the first site of eruption of the rash. In spotted fever the rash appears first on the extremities, chiefly the wrists and ankles. In typhus, both epidemic and endemic, the rash appears first on the body, chiefly on the chest and abdomen.

In these diseases one should always avoid giving glucose and saline solutions, which serve to distend the vessels, where the pathologic changes exist. In fact, these solutions are contraindicated except under most extraordinary circumstances where the giving of blood or glucose is considered necessary to save the life of the patient. In these cases the quantity given should be kept to a minimum.

At the present time experimental work, which is underway at the National Institute of Health, is very encouraging in that we may soon have a laboratory test which will differentiate between endemic typhus fever and Rocky Mountain spotted fever. I should like also to point out that there has just become available in limited quantities a serum which may be life-saving in the treatment of spotted fever, provided it is given in the early stages of the disease. This serum has been developed by Dr. Norman Topping, of the National Institute of Health. However, its use after the first five or six days of the disease is not recommended, since it apparently has no effect whatsoever on the course of the disease after this period of time.

In regard to prevention of these diseases, I should like to point out that there is available a vaccine against Rocky Mountain spotted fever which apparently affords very high protection. However, it would not appear that the use of this vaccine would be worthwhile, except in those people whose occupation brings them in rather frequent contact with ticks. The other precaution which everyone should take is that they examine themselves closely after having gone into the woods, even for a short period of time. Ordinarily it is several hours before the tick attaches itself after it gets on a person and, for this reason, transmission of the disease usually does not take place until the tick has been on the body for some time. Ticks should preferably be removed from the body with tweezers. The wearing of clothing which makes it difficult for the tick to reach the skin, and the early removal of ticks from the body is a worthwhile procedure in the prevention of this disease.

In regard to endemic typhus fever, it is well to point out that the Cox vaccine against this disease became available about twelve months ago and is apparently effective in the prevention of endemic as well as epidemic typhus fever. For those people whose occupation brings them in rather close association with rats and consequently rat fleas, it would appear that the use of this vaccine would be indicated. The other method, of course, is the elimination of rats in so far as possible about one's place of residence and one's place of business.

The Department of Public Health will be glad to supply any information concerning the control of typhus fever and rats.

C. D. Bowdoin, M.D., Director,
Division of Preventable Diseases,
Georgia Department of Public Health.

REFERENCE

Zinsser, Hans—"Epidemiology and Immunity in the Rickettsial Diseases" Virus and Rickettsial Diseases—Pape 874.

OFFICERS AND COMMITTEES

(Continued from Page 369)

Maternal Mortality and Infant Deaths

H. F. Sharpley, Jr., Chairman.....Savannah
C. B. Upshaw.....Atlanta
Richard Torpin.....Augusta
A. H. Hilsman.....Albany
David M. Wolfe.....Atlanta

National Youth Administration

C. L. Ayers, Chairman.....Toccoa
Shelley C. Davis.....Atlanta
T. F. Abercrombie.....Atlanta
M. C. Pruitt.....Atlanta

Fraternal Delegates

Alabama: R. F. Wheat, Bainbridge; Don F. Cathcart, Atlanta; W. P. Phillips, LaGrange.

Florida: Mark S. Dougherty, Jr., Atlanta; W. F. Reavis, Waycross; Harold P. McDonald, Atlanta.

North Carolina: C. W. Roberts, Atlanta; R. M. Harbin, Jr., Rome; C. D. Whelchel, Gainesville.

South Carolina: G. Lombard Kelly, Augusta; V. P. Sydenstricker, Augusta; Grady N. Coker, Canton.

Tennessee: Z. V. Johnston, Calhoun; M. M. McCord, Rome; Trammell Starr, Dalton.

NEWS ITEMS

Dr. J. G. Sharpley has been appointed a member of the Committee on Pensions and Charities of the City of Savannah. He succeeds the late William H. Myers, M.D.

Dr. Sterling H. Jernigan has located in Sparta and will be associated with his father, Dr. C. S. Jernigan, in the practice of medicine.

Dr. Jack C. Norris, Atlanta, has been assigned to active duty on the hospital ship U. S. S. Solace, now being equipped at Brooklyn, N. Y.

If interested in an excellent location to practice medicine write to M. M. Clements, Pineview, Ga. Names of other locations may be had by writing the Secretary-Treasurer.

WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.
President-Elect—Mrs. J. Lon King, 223 Buford Place, Macon.
First Vice-President—Mrs. W. A. Selman, 760 Penn Avenue, N. E., Atlanta.
Second Vice-President—Mrs. Fred Rawlings, Sandersville.
Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.
Third Vice-President—Mrs. J. R. McMichael, Quitman.
Recording Secretary—Mrs. J. C. Metts, 303 Anderson Ave., Savannah.
Parliamentarian—Mrs. J. E. Penland, Waycross.
Treasurer—Mrs. Bruce Schaefer, Toccoa.
Corresponding Secretary—Mrs. Charles Usher, 6 East Liberty Street, Savannah.
Historian—Mrs. Ralph Freeman, Hoschton.

NEW CHAIRMEN

Mrs. Lee Howard, of Savannah, president of the Woman's Auxiliary to the Medical Association of Georgia, announces the following chairmen who will serve with her during the year: Mrs. J. Lon King, 223 Buford Place, Macon, president-elect and chairman of organization; Mrs. W. A. Selman, 760 Penn Avenue, Atlanta, first vice-president and chairman of health education; Mrs. Fred Rawlings, Sandersville, second vice-president and chairman of Hygeia; Mrs. J. R. McMichael, Quitman, third vice-president and chairman of scrapbook; Mrs. Harry M. Kandel, 432 Abercorn Street, Savannah, public relations; Mrs. C. C. Harrold, 550 Orange Street, Macon, legislation; Mrs. J. Harry Rogers, 134 Huntington Road, Atlanta, press and publicity; Mrs. Leo Smith, 307 Kolloch Street, Waycross, health films; Mrs. Y. Harris Yarbrough, Milledgeville, Doctors' Day; Mrs. C. L. Ayers, Toccoa, Research in Romance of Medicine; Mrs. L. W. Williams, 135 East 45th Street, Savannah, Student Loan Fund; Mrs. W. G. Elliott, Cuthbert, Jane Todd Crawford Memorial; Mrs. Ralph Chaney, Forrest Hills, Augusta, revisions; Mrs. J. Bonar White, 769 Penn Avenue, Atlanta, archives; Mrs. Charles Mulherin, 2727 Henry Street, Augusta, exhibits and awards; Mrs. H. G. Banister, Ila, Brawner trophy; Mrs. J. C. Metts, Savannah, was elected recording secretary at a recent executive board meeting, succeeding Mrs. Loren Gary, Jr., Shellman, who has moved out of the state. Mrs. Howard has appointed Mrs. J. E. Penland, Waycross, as parliamentarian.

FIRST DISTRICT

The Woman's Auxiliary to the First District Medical Society met on July 16 in the Gold Room of the Hotel DeSoto in Savannah. Mrs. W. E. Simmons, of Metter, manager, presiding. Mrs. E. N. Gleaton, president of the Chatham County Auxiliary, welcomed the members and guests and Mrs. Waldo Floyd, of Statesboro, responded.

Dr. Robert V. Schultz, of the State Department of Health, told of the joint program of visual health education sponsored by the Medical Association of Georgia, The Georgia Department of Health and the Woman's Auxiliary to the Medical Association of Georgia. Moving picture projectors purchased by the Medical Association of Georgia, one for each Congressional District, will be in custody of the Councilors of the districts and the film library being established. These films will be made available to groups interested in health education through the local committees from Auxiliaries to the Medical Societies.

Dr. Allen H. Bunce, president of the Medical Association of Georgia, talked of the status of medical education and stressed the importance of upholding the present high standards and of the existing dangers that threatened to lower these standards.

Dr. James N. Brawner, chairman of the Advisory Committee, reviewed some of the advances in medicine since the settlement of Georgia and discussed the timeliness of the nutrition program which the Auxiliary will continue to stress this year.

Mrs. Lee Howard gave the report of the revisions committee, and the proposed changes in the by-laws were adopted.

Mrs. L. W. Williams reported for the nominating committee. The following officers were elected: Mrs. W. E. Simmons of Metter, district manager; Mrs. T. A. Peterson of Savannah, vice-manager; Mrs. R. L. Sample of Graymont, secretary and treasurer.

CHATHAM COUNTY

The Woman's Auxiliary to the Georgia Medical Society met on June 3 at the Savannah Beach cottage of Mrs. S. F. Rosen with Mesdames L. J. Rabhan, G. H. Lang, A. A. Morrison, Sr., A. A. Morrison, Jr., W. H. Myers and L. W. Williams, co-hostesses. There were 35 members present and the president, Mrs. E. N. Gleaton, presided.

A splendid report of the State Convention held in Macon was given by Mrs. S. P. Sanford. Mrs. G. H. Lang, chairman for Chatham County of state exhibits, was given a rising vote of thanks for winning the State award. Mrs. R. V. Martin, chairman of cancer committee, reported that $561.16 had been collected. Mrs. W. R. Dancy, reporting as chairman of Constitution and By-Laws, stated that 200 copies would be ready for the next meeting. The Auxiliary decided to sponsor the sale of Christmas cards

again, Mrs. L. W. Shaw being chairman, assisted by Mesdames Hugo Johnson, W. R. Dancy, A. A. Morrison, Jr., and W. H. Myers.

The following committee chairmen were announced: program, Mrs. Charles Usher; health education, Mrs. R. V. Martin; hospitality, Mrs. E. C. Demmond; organization and membership, Mrs. W. H. Myers; publicity, Mrs. T. A. Peterson; parliamentarian, Mrs. J. S. Howkins; research in romance of medicine, Mrs. A. A. Morrison, Jr.; Jane Todd Crawford, Mrs. Ralston Lattimore; budget and finance, Mrs. H. H. McGee; Doctors' Day, Mrs. R. L. Neville; Hygeia, Mrs. Ruskin King; historian and scrapbook, Mrs. Hugo Johnson; Student loan fund; Mrs. L. W. Williams; public relations, Mrs. J. E. Porter; and exhibits, Mrs. W. D. Wilson.

The president announced that the mid-summer district meeting would be held on Wednesday, July 16, at the DeSoto Hotel, with Mrs. W. E. Simmons, district manager, presiding. The committee for the meeting consists of Mesdames S. P. Sanford, J. C. Metts, H. H. McGee, R. L. Neville, O. H. Lott and A. A. Morrison, Sr. The hostesses served a buffet luncheon following adjournment.

Fulton County

The final 1940-41 meeting of the woman's Auxiliary to the Fulton County Medical Society was held in Atlanta on June 6, Mrs. Olin S. Cofer, president, submitting an inspiring report of the excellent work accomplished during the year. Mrs. John Turner, treasurer, stated in addition to the $100 left in the treasury for the incoming president a total of $226.57 was deposited in the Auxiliary's investment fund, this now totaling $1,584.83. Mrs. J. J. Clark, year book chairman, reported the year books had been completed and were ready for distribution. The attractive book, bound in blue and gold, Auxiliary colors, depicts the history of the local group from its organization through the activities of the 1940-41 regime. Reports were given by Mrs. Edgar H. Greene and Mrs. O. H. Matthews of the State Convention in Macon and it was announced a member of the Fulton Auxiliary, Mrs. W. A. Selman, was elected first vice-president.

Mrs. Cofer, after reading her splendid report, installed the following new officers, Mrs. Murdock Equen, president; Mrs. Edgar H. Greene, president-elect; Mrs. W. M. Dunn, first vice-president; Mrs. H. Cliff Sauls, second vice-president; Mrs. S. Ross Brown, third vice-president; Mrs. Gaston Gay, recording secretary; Mrs. F. C. Holden, corresponding secretary; Mrs. A. B. Anderson, treasurer; Mrs. Jackson Landham, auditor; Mrs. Mason Lowance, historian; and Mrs. James N. Brawner, parliamentarian. Mrs. J. R. Childs, chairman, Mrs. Eugene Daniel, co-chairman, and the members of the house and grounds committee, served a delightful luncheon.

Baldwin County

Mrs. Richard Binion, of Milledgeville, was named president of the Woman's Auxiliary to the Baldwin County Medical Society at a recent meeting held at the home of the retiring president, Mrs. Charles Richardson, in Milledgeville. Other officers named were Mrs. Dawson Allen, Jr., first vice-president; Mrs. Sam Anderson, second vice-president; Mrs. Charles Fulghum, secretary, and Mrs. L. A. Bailey, treasurer. Members of the nominating committee were Mrs. J. I. Garrard, Mrs. L. P. Longino and Mrs. Edwin Allen. Mrs. H. D. Allen, Sr., and Mrs. Richardson were named honorary past presidents in appreciation of their services to the organization.

Georgia Auxiliary members will learn with keen interest of the honor recently paid one of their number, when Mrs. J. M. Barnett, of Albany, was selected as "Dougherty County's outstanding woman citizen." The Albany woman's Club presented Mrs. Barnett a silver cup, stressing the fact that she was nominated following recommendations received from citizens outside the Woman's Club. Mrs. Barnett is one of the original members of the Woman's Auxiliary to the Dougherty County Medical Society, having served as president many times. In addition to Auxiliary work, she is active in child welfare projects, the P.-T.A., church, Red Cross, cancer drive, Community Concert Association, D.A.R., and American Legion Auxiliary, as well as the Woman's Club. In making the award, Mrs. Whitfield Gunnels, chairman, said that Mrs. Barnett was chosen because of her versatility and years of unselfish service to the community.

BLACKHEADS AND PIMPLES

(Continued from Page 362)

One, two or three unit doses totaling this amount is more harmful, and sometimes dangerous. One who attempts to treat acne with x-ray alone will usually be disappointed. Because its effect is often temporary and youngsters in early adolescence are often highly radio-sensitive it should only in exceptional instances be given before the age of 18 or before the reasonable establishment of adolescence. X-ray is not a cure-all for acne.

"But how long does it take?" The answer to this must be straddled but yet must be emphatic. It sometimes takes special facial care throughout adolescence. It always takes months instead of weeks or days. But we believe as a whole the result is good.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
Executive Secretary—Durice Dickerson, R.N., Atlanta

131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

FACULTY PREPARATION FOR SCHOOLS OF NURSING

LUCY HARRIS, R. N.
Atlanta
President Georgia League of Nursing Education

Graduation from an accredited school of nursing giving the three-year basic course does not qualify a nurse for a position on the faculty of a school of nursing. Most faculty members have dual responsibilities. They not only have responsibility in assisting in the planning and carrying out of the teaching program but must devote a great deal of their time to the management of a division or ward. The kind and amount of preparation recommended for faculty members depends upon the position held. Needless to say, faculty members should have better preparation than those they attempt to teach. The minimum standard recommended by the National League of Nursing Education and adopted in a modified form by some states for nurses who wish to become head nurses are:

1. College entrance eligibility (two years of college training, if possible).

2. Graduation with good standing from an accredited school of nursing.

3. Registration in the state in which the school is located.

4. Post-graduate study in the clinical field in which she wishes to specialize.

5. Study in ward management and ward teaching.

6. Experience in general nursing practice as a hospital staff nurse, private duty, visiting nurse, association staff nurse, or assistant head nurse.

Until fairly recently it was not considered necessary for supervisors to have as much preparation as instructors, although it was recognized that she needed experience and executive ability. The goal toward which many schools and State Boards of Nurse Examiners are striving for preparation of supervisors and teachers is:

1. Completion of an academic course usually required for the baccalaureate degree.

2. At least one year of advanced preparation along the line of the individuals's major interest; that is, if supervision in pediatrics is her field of interest, then she should have special study in that field; if teaching of nursing arts, then special study in that field is recommended.

3. For the supervisor, at least one year of satisfactory experience as a head nurse. For the instructor, at least six months' experience as a head nurse and six months' experience as assistant instructor is recommended.

Other qualifications as fully important are good health, physical energy, enthusiasm, intelligence, resourcefulness, moral integrity, cooperative spirit, loyalty and idealism.

It is extremely difficult for faculty members in any appreciable number to secure adequate preparation in professional subjects in this area. It is not possible, particularly at this time, to give extended leaves of absence to many faculty members. Because of the great distances to available places of study and the cost involved, many find it impossible to take advantage of the needed preparation.

No matter how keenly the need for better preparation is felt, until graduate study is made reasonably easy to obtain, no group or state can require that even minimum standards be met. As long as it is necessary that faculty members give up positions and go to a distant state for graduate study, relatively few can or will avail themselves of such opportunities.

Georgia nurses have made several attempts to develop courses at the University that would be helpful to faculty members but none has resulted in a permanent program.

Beginning the latter part of September, 1941, classes in ward management and ward teaching will be conducted under the auspices of the University System of Georgia Evening School, in Atlanta. The classes will be taught by Miss Phoebe M. Kandel, vice president of the National League of Nursing Education. She is a woman of broad vision and has had many years of valuable experience in teaching, supervision and administration. Classes will be held in two hospitals and will be open to any registered nurse but since registration must be limited to forty-three, preference will be given to nurses holding faculty positions. Miss Kandel will visit all hospitals where students are enrolled for these classes and will deal with concrete problems arising from local situations. These classes will be held three times a week for a period of two months. The total cost per person for the two courses will not exceed $24.50. Although this plan is to meet an immediate need it is hoped that its values will be recognized to the extent that a permanent program will be developed from it and similar classes organized in other Georgia cities where there are accredited schools of nursing.

The Georgia League of Nursing Education, in collaboration with Dr. George M. Sparks, Director of the University System of Georgia Evening School, has arranged for classes in Nursing Education to be conducted in Atlanta. These classes will begin the latter part of September and continue for a period of two months. Subjects to be offered are Ward Management and Ward Teaching.

The League has been fortunate in securing the services of Miss Phoebe M. Kandel, R.N., Vice President of National League of Nursing Education, who has had more than ten years' experience in conducting similar staff education programs.

Registration will be limited and it is urged that those who are interested write immediately to Durice Dickerson, 131 Forrest Ave., N. E., Atlanta, making reservations for enrollment. The total cost of the two courses per person will be $24.50, but the League is making an effort to raise funds so that this may be reduced to $20.00.

NEWS ITEMS

Dr. H. Cliff Sauls and Dr. Carter Smith announce the association of Dr. Charles F. Stone, Jr., in the practice of internal medicine with offices in Suite 1210 Medical Arts Building, Atlanta.

Dr. K. C. Walden, Waycross, entertained the members of the Ware County Medical Society at the Atlantic Coast Line Railroad Hospital to dinner on July 2. Dr. W. F. Reavis spoke on the use of the new moving picture machines and films which had been purchased by the Medical Association of Georgia to promote health education. Dr. W. C. Hafford and Dr. M. M. Harris discussed clinical cases.

The Gwinnett County Medical Society and Woman's Auxiliary met at the Buford Club House, June 18, as guests of Dr. and Mrs. W. J. Hutchins.

Dr. Bomar A. Olds announces the location of his Atlanta office at 157 Forrest Avenue, N. E. (corner Piedmont and Forrest Avenues).

Dr. Hal M. Davison, Dr. James C. Thoroughman and Dr. John B. Peschau announce their association for the practice of medicine with offices in Suite 207 Doctors Building, 478 Peachtree Street, N. E., Atlanta.

The Fulton County Medical Society met in the Nurses' Home at the Crawford W. Long Memorial Hospital, Atlanta, July 21. The following members gave case reports: Dr. Linton Smith, *Pneumonia, and Pneumonia with Pleurisy Treated with Artificial Pneumothorax*, report and discussion of 20 cases treated, motion picture showed the technic: Dr. Trimble Johnson and Dr. A. A. Rayle, *Cancer of the Stomach—True and False X-Ray Findings*—reported two cases with positive x-ray evidence of carcinoma of the stomach, one of which was proven to be a misinterpretation: Dr. Irving L. Greenberg, *Unusual Hernia in a Female*—case report of a very obese woman of 50 with a large abdominal mass, the true nature of which was in question until operation: Dr. Clarence Laws, *Sensitization of Thiamin Chloride*—induced sensitization through repeating parenteral injections of thiamin chloride with anaphalactic shock following administration beyond the latent period. The following contributed articles which were published in The Bulletin, dated July 21: Dr. Edgar H. Greene, Lieut. Jas. G. McDaniel, M.D., Dr. James E. Paullin, Dr. O. O. Fanning, Dr. Wm. W. Anderson, Dr. J. F. Hackney.

Dr. Mason I. Lowance announces the removal of his offices to 215 Doctors Building, 478 Peachtree Street, N. E., Atlanta, with practice limited to internal medicine.

The Bibb County Medical Society met on the roof of the Doctors Building, Macon, August 5. Colored motion pictures were shown—with Abdomino-Perineal Resection.

Dr. W. R. Richards, Calhoun, has recovered from an extended illness and has resumed the practice of medicine.

The Fourth District Medical Society met at the City-County Hospital, LaGrange, August 12. Dr. J. S. Holder, LaGrange, reported a case, *Rare Tumor of the Stomach*, discussed by Dr. Francis P. Parker, Emory University: Dr. W. H. Clark, LaGrange, *Coronary Occlusion*, discussed by Dr. L. Minor Blackford, Atlanta: Dr. Enoch Callaway, LaGrange, *Plastic Repair After Surgical Removal of Cancer of the Face*, discussed by Dr. Calvin Stewart: Dr. D. Henry Poer, Atlanta, reported on the activities of the *Committee on Hospitals*. Other speakers on the program included Dr. Allen H. Bunce, Atlanta, president of the Association; Dr. J. A. Redfearn, Albany, president-elect. Patients were presented with ample time for discussion. Officers of the Society are Dr. T. I. Hawkins, Griffin, president; Dr. Frank Amis, Hogansville, vice president; Dr. Marvin M. Head, Zebulon, secretary-treasurer.

OBITUARY

Dr. William Herman Myers, Savannah; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1901; aged 62; died suddenly July 17, 1941, while on a vacation at Highlands, N. C., with his son, Robert. He was born at Lynn Grove, Ky. Dr. Myers attended the common schools of Kentucky then the University of Tennessee. He served as an intern at the Nashville City Hospital, then began contract practice as a surgeon and was in the Reserve Corps of the U. S. Army from 1906-13, and served in the Philippine Islands 1907-10. After he resigned from the Reserve Corps of the U. S. Army he did private practice in Savannah until the first World War, re-enlisted and served as Captain in the Medical Corps of the U. S. Army until he received an honorable discharge; then did private practice in Savannah until his death. He held many important offices in the Georgia Medical Society, Savannah, organized the Savannah Health Center and served as its first president. Until his death he was an active member of the Georgia Medical Society, First District Medical Society, Medical Association of Georgia, fellow

of the American Medical Association, American College of Surgeons, member of the Shrine and Christ Episcopal Church. Dr. Myers served as Councilor of the First District from 1927 to 1933; delegate to the American Medical Association from 1928 until his death; president of the Medical Association of Georgia 1939-40. If any one ever made a keen remark about Dr. Myers or if he ever had an enemy, no one seemed to hear of it. With the positions he held, he must have had a master mind and at all times directed its functions for the betterment of humanity. It would require a lot of time and deep thought to bring out the first and minor characteristics of a man who served so well. Surviving him are his widow, one daughter, Miss Addine Campbell Myers; one son, Robert Morgan Myers. Rt. Rev. Middleton S. Barnwell officiated at the funeral services conducted from Christ Episcopal Church. Interment was in Bonaventure Cemetery. The following former presidents and officers of the Association were appointed by Dr. Allen H. Bunce, president of the Association, to serve as an honorary escort: Dr. Allen H. Bunce, Dr. C. W. Roberts, Dr. W. A. Selman and Dr. M. C. Pruitt, all of Atlanta; Dr. W. A. Mulherin, Dr. E. E. Murphey and Dr. Geo. A. Traylor, Augusta; Dr. C. H. Richardson, Dr. O. H. Weaver, Macon; Dr. J. W. Daniel and Dr. Wm. R. Dancy, Savannah; Dr. J. W. Palmer, Ailey; Dr. J. A. Redfearn, Albany; Dr. C. K. Sharp, Arlington; Dr. J. W. Simmons, Brunswick; Dr. B. H. Minchew and Dr. W. F. Reavis, Waycross; Dr. C. Thompson, Millen; Dr. A. J. Mooney, Statesboro; Dr. V. O. Harvard, Arabi; Dr. J. C. Patterson, Cuthbert; Dr. S. P. Kenyon, Dawson.

Dr. John Arte Usher, Savannah; member; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md., 1904; aged 64; died on July 15, 1941, at his home after several weeks illness. He was born near Springfield and attended the common schools of the community, the Newberry College, S. C., and later studied at the University of Georgia, Athens. He began practice in Bulloch County in 1904 then moved to Savannah in 1906 and practiced there until disabled. Dr. Usher was a member of the Georgia Medical Society, First District Medical Society, and Bethel Lutheran Church, near Springfield, and F. & A. M. Dr. Usher had many friends and was a noted and useful citizen. Surviving him are his widow, one daughter, Mrs. Clarence W. Mobley, Jr., Augusta; three brothers, Dr. Charles Usher, Savannah; George E. Usher, Springfield; Col. Jesse W. Usher, Guyton; two sisters, Mrs. B. E. Heidt and Mrs. Eliza Boaen, both of Springfield. Rev. J. V. Addy, Rev. H. J. Black and Rev. W. A. Reiser officiated at the funeral services conducted at Bethel Lutheran Church. Burial was in the church yard.

Dr. Gaines Richard Thigpen, St. Marys; Emory University School of Medicine, Atlanta, 1893; aged 72; died on July 17, 1941, at his home after a long illness. He was born near Waycross in Ware County. He began the practice of medicine in Homerville, then moved to St. Marys in 1912 where he practiced until he was disabled. He was charitable and during his career did a great amount of charity practice. Surviving him are his widow, two daughters, Mrs. W. B. Burnett, Lynchburg, Va., and Miss Margaret Thigpen, Atlanta; two sons, H. M. Thigpen, Norfolk, Va., and Richard F. Thigpen, Atlanta. Rev. F. H Chapman and Rev. L. W. Walker officiated at the funeral services conducted from the Presbyterian Church in St. Marys. Burial was in Kettle Creek church yard, near Waycross.

MEMORIAL TO DOCTOR STEWART R. ROBERTS WITHIN THE NEW ATLANTA ACADEMY OF MEDICINE

The doctors of Atlanta are building a new Academy of Medicine. It is going up at the corner of West Peachtree and Seventh Streets, and should be completed sometime before the end of the year. The funds for the building have been raised through personal contributions, and fees against all the members of the Fulton County Medical Society. We shall be proud to possess our new home, and shall welcome any visiting physician from any part of the country into it.

Such a home for our Medical Society was a dream of Doctor Stewart R. Roberts. He was one of the members of the original committee appointed to develop plans for it. That he did not survive to see it come into being is a poignant regret of all who knew of his enthusiasm and interest in it.

Because we shall miss his presence in this splendid place, it is the earnest desire of the Fulton County Medical Society to pay tribute to his leadership and devotion by a lasting memorial within the structure of the building. It is felt that some of his many friends among the profession throughout Georgia would enjoy an opportunity to participate in such a tribute. This is the spirit in which this notice is presented.

The present Building Committee has requested Dr. Vernon E. Powell, 768 Juniper Street, N. E., Atlanta, Georgia, to accept contributions to be used for this purpose.

Should you wish to contribute please make your check payable to the Fulton County Medical Society and mark it BUILDING FUND, STEWART R. ROBERTS MEMORIAL, and mail it to Doctor Powell. Contributions will be acknowledged in the Medical Society Bulletin (although amounts will not be stated in print), and also by a letter from the Committee secretary.

PHYSICIANS PRESCRIPTIONS

The importance of having the physician prescribe the proper diaphragm is stressed in a booklet, addressed to pharmacists, by the Holland-Rantos Company entitled "The Pharmacist Looks At Contraceptives."

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TRY PABLUM ON YOUR VACATION

Vacations are too often a vacation from protective foods. For optimum benefits a vacation should furnish optimum nutrition as well as relaxation, yet actually this is the time when many persons go on a spree of refined carbohydrates. Pablum is a food that "goes good" on camping trips and at the same time supplies an abundance of calcium, phosphorus, iron and vitamins B_1 (thiamine) and G (riboflavin). It can be prepared in a minute, without cooking, as a breakfast dish or used as a flour to increase the mineral and vitamin values of staple recipes. Packed dry, Pablum is light to carry, requires no refrigeration. Here are some delicious, easy-to-fix Pablum dishes for vacation meals:

Pablum Breakfast Croquettes

Beat three eggs, season with salt, and add all the Pablum the eggs will hold (about 2 cupfuls). Form into flat cakes and fry in bacon fat or other fat until brown. Serve with syrup, honey or jelly.

Pablum Salmon Croquettes

Mix 1 cup salmon with 1 cup Pablum and combine with 3 beaten eggs. Season, shape into cakes, and fry until brown. Serve with ketchup.

Pablum Meat Patties

Mix 1 cup Pablum and 1½ cups meat (diced or ground ham, cooked beef or chicken), add 1 cup milk or water and a beaten egg. Season, form into patties, and fry in fat.

Pablum Marmalade Whip

Mix 2/3 cup Pablum, ¼ cup marmalade, and ¼ cup water. Fold in 4 egg whites beaten until stiff and add 3 tablespoons chopped nuts.

NEW TREATMENT OF DIARRHEA IN BABIES

Before the advent of Mead's Pectin-Agar in Dextri-Maltose, there were two methods of treating diarrhea in infants: (1) the "starvation" or "rest" method, consisting of withholding food during the duration of the diarrhea, offering the baby water and carbohydrate solutions. While this succeeded in preventing extreme dehydration, the child received practically no food to maintain nutrition, so that, when long continued, his resistance was greatly impaired. (2) the "Finkelstein method," based on the theory that some carbohydrates are especially likely to cause fermentation and prolong diarrhea. His method consisted of high protein feedings in the form of protein milk, sometimes with added carbohydrate, and continues to have many advocates, especially in breast-fed infants One of the successful modification has been Casec (calcium caseinate), which can be used for both breast-fed and bottle-fed infants.

In recent years, the use of raw apple and weak tea for treating diarrhea has had various proponents. The literature contains reports by Birnberg, Reglien, Kaliski, Giblin and Lischner, McCaslan, Tompkins, Borovsky, Stein, and Hunt. Smith and Fried believe that any beneficial effects from scraped raw apple are due to the partial starvation effected by the regimen. The success of apple and tea therapy has stimulated hypotheses as to the effective agent. Moro attributed its value to tannic acid. Heisler would also give credit to malic acid and to the mechanical cleansing of the intestines, while Scheer places most emphasis on indigestible bulk. Malyoth believes pectin and cellulose are the active aegnts.

Based on their experience with apple, Winters and Tompkins devised a mixture of pectin, agar and Dextri-Maltose which was more successful. Others have privately confirmed their finding that a mixture of this nature is of value in diarrhea. Kutscher and Blumberg studied the use of the pectin-agar mixture with and without carbohydrate. They concluded that the addition of Dextri-Maltose to the other constituents was a definite advantage. Various reasons for the effectiveness of both pectin and agar have been advanced but none has a background of experimental proof. It has been claimed that pectin is bactericidal, that its constituent galacturonic acid functions as a dextoifying agent, that it absorbs toxins and enmeshes bacteria, that its hydrophilic nature prevents dehydration, and that it is soothing to an inflamed gastrointestinal tract. Bulk is the only valuable characteristic advanced for the use of agar.

In practice, the application of this method differs from the starvation method in that full caloric feedings are immediately instituted and maintained.

The new method differs from protein milk therapy in that a diet high in carbohydrate is fed. It also has the advantage of palatability, particularly important with older children.

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SQUIBB SUPPLIES SOLUTION SODIUM ASCORBATE FOR INTRAVENOUS ADMINISTRATION OF VITAMIN C

For patients who are severely ill or with abnormal requirements of vitamin C such as are connected with surgical procedures, and for patients with poor utilization or faulty absorption of this vitamin, E. R. Squibb & Sons, New York, now supply Solution Sodium Ascorbate for intravenous administration. Made from the sodium salt of pure synthetic ascorbic acid (vitamin C), Solution Sodium Ascorbate contains per 1 cc. an amount equivalent to 100 mg. of ascorbic acid (2,000 U. S. P. XI units of vitamin C). It is supplied in 1-cc. ampuls, packaged in boxes of six and 25.

The average dose of Solution Sodium Ascorbate is 1 cc., equivalent to 100 mg. ascorbic acid. (One clinician reports giving as high as 10,000 mg., 10 grams, intravenously in a single dose to an adult). The Squibb leaflet on this product gives suggested dosages in infantile scurvy, severe adult scurvy, capillary fragility and surgical patients.

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THE SPECIAL FIELD OF CARDIAC SURGERY

DANIEL C. ELKIN, M.D.
Atlanta

The discussion of such a subject would have been out of the question twenty years ago. That even an airplane view of this field can be considered in the short time allowed me is evidence that the subject is still in its infancy—that it is considered at all, is likewise evidence of its rapid and increasing importance.

The surgery of the heart, as of the other parts of the body, had its beginning in the treatment of trauma, but in the lifetime of everyone here the treatment of non-traumatic lesions by operation has made remarkable advances.

Homeric literature abounds with reference to fatal cardiac wounds; Hippocrates[1] believed them to be deadly. Pare[2] described them but made no suggestions regarding their treatment. Boerhaave[3] stated that all wounds of the heart were mortal. Hunter made no mention of heart wounds, and John Bell[4] in his "Discourses on the Nature and Cure of Wounds," devoted only two paragraphs to the subject, although he recognized the signs and symptoms of the condition and cited two patients who lived several hours and might well have been saved by operation. He thus dismissed the subject: "there is so little to be done . . . and the signs and consequences are so clear, that it were a waste of time to speak longer of wounds of the heart." Billroth,[5] who dominated the surgery of his day, wrote (in 1875): "Paracentesis of the pericardium is an operation which in my opinion approaches very closely to that kind of intervention which some surgeons would term a prostitution of the surgical art and others madness." He did add, prophetically, "Perhaps another generation will think otherwise about it." Later, (in 1883) he made the statement that "the surgeon who should attempt to suture a wound of the heart would lose the respect of his colleagues," and as late as 1896 Stephen Paget[6] wrote: "The surgery of the heart has probably reached the limits set by nature to all surgery; no new method and not new discovery can overcome the natural difficulties that attend a wound of the heart."

The heart, like other thoracic viscera, works under a narrow margin of safety. Rapid changes in pressure relationships, particularly in the pericardium, affect the filling and emptying of the heart, and, if unrelieved, will quickly bring about a standstill of the cardiac mechanism.

Normally the intrapericardial pressure is less than that of the atmosphere, and the pressure in the intrathoracic portions of the venae cavae is probably negative. With the rapid accumulation of fluid in the pericardium, as from pus or blood, the venous pressure rises, and after it reaches a height sufficient to overcome the increased intrapericardial resistance, blood enters the heart, and the circulation continues. Thus, an increasing pericardial pressure must be overcome by an ever-increasing venous pressure if the circulation is to be maintained. In rapidly increasing accumulations of fluid the pericardium cannot distend sufficiently nor can the venous pressure rise to such a level as to allow the filling of the heart for any length of time. Where the tamponade of the heart is gradually produced (serous effusion), the pericardium is slowly distended and a high venous pressure will maintain the circulation for days.

From the Department of Surgery, Emory University School of Medicine.
Guest speaker at the Ninety-Second Annual Session of the Medical Association of Georgia, Macon, May 14, 1941.

Acute tamponade leads to cerebral anemia, for when the heart can no longer fill, it can no longer empty. Release of tamponade is, therefore, a matter of first importance, and demands immediate treatment. The symptoms are a low or unobtainable arterial pressure, a high or rising venous pressure, and a quiet heart. The pulse is weak or absent, and the veins, particularly those of the neck, are prominent and strutted. Because of the venous stasis there is a marked pallid cyanosis of the lips and tongue.

Operations of emergency will, therefore, involve those conditions giving rise to acute compression; wounds and suppuration, the removal of emboli blocking the pulmonary artery, and resuscitation of the stopped heart.

WOUNDS OF THE HEART

Wounds of the heart, though relatively rare, are being reported with increasing frequency but the condition is often overlooked. Early diagnosis is necessary, for delay in operating is rapidly fatal. Every surgeon should realize that at any time the necessity may arise for immediate cardiorrhaphy.

Diagnosis. Wounds of the heart which are amenable to suture are usually produced by a knife or ice pick. Gunshot wounds are more apt to prove fatal before operation can be done, but the same principles of diagnosis and the same technic of suture are applicable.

Because of its position in relation to the anterior chest wall, wounds of the right ventricle are more numerous; but wounds of all four chambers as well as those of the intrapericardial portions of the great vessels may be encountered. The exact location of the wound can only be surmised before operation, since symptoms from bleeding or tamponade will be the same, regardless of the location. Death may occur from rapid loss of blood either into the chest or to the outside, but is more likely to occur as a result of tamponade.

The history is usually characteristic. There is freedom from symptoms for several minutes after the injury, followed by exhaustion and then loss of consciousness. Either stupor or wild delirium may follow. Patients have been known to walk several blocks or to continue fighting for as long as five minutes after a wound of the heart. Bleeding is profuse at first, but soon stops. This train of symptoms is due to a rapid but gradual tamponade. When the heart is wounded, it bleeds freely to the outside and usually into the pleural cavity as well. At the same time some blood collects in the pericardium and when 100 to 200 cc. have so collected, the heart is compressed, contractions become weak, and bleeding to the outside stops. With the rise in intrapericardial pressure, the venae cavae can no longer empty normal quantities of blood to the heart, and cerebral anemia, as evidenced by unconsciousness, results.

The skin is usually cold and moist, and because of the venous congestion there is a pallid cyanosis of the lips and tongue. The heart sounds are weak, often irregular, and the pulse is weak or imperceptible.

The arterial pressure is lowered, even unobtainable, and the venous pressure is raised as evidenced by prominent strutted veins, particularly those of the neck. By direct measurement this pressure is frequently above 200 mm. of water, and a rise to 400 mm. of water has been observed. Such a pressure is consistent with life is not maintained for too long a period.

Roentgenograms are of no value, since death may occur from an amount of blood in the pericardial sac too small to cause a noticeable change in the size and contour of the heart shadow.

Fluoroscopic examination is of great value, since the normal pulsations are prevented by a small accumulation of blood in the pericardial sac. Of all the diagnostic aids, this is the most accurate in proving or disproving one's suspicions of cardiac tamponade. It had best be done with the portable fluoroscope, for with this unit the patient need only be turned on his side for the examination.

Operation should be done as soon as the diagnosis is established. To hasten and facilitate this, all necessary instruments should be kept ready in a separate container

and sterilized by autoclave. Since infection of the pericardium and pleura is a frequent complication, the operation should be performed with meticulous care. The head should be lowered and the body kept warm. The administration of a 6 per cent solution of acacia may be life-saving, and autotransfusion of citrated blood removed during the operation should be given when possible. Blood transfusion should be done as soon as possible after the release of the tamponade, and for this the "blood bank" is a valuable addition to any hospital where emergency cases are treated.

Anesthesia. Inhalation anesthetics are preferred to local anesthetics for several reasons. The pleura may have been opened by the wound or may be accidentally opened during the operation, and nitrous oxide and oxygen under positive pressure are necessary for the inflation of the lung. The difficulties of heart suture require that the patient be quiet, but these patients are usually wildly excited or are apt to become so with release of the tamponade. Unless completely anesthetized their struggles may interfere with the operation at the most inopportune time.

Suture of the Heart. The incision should be so planned as to give the best exposure with the least trauma. It must also be made with some consideration as to the position of the external wound. Although the pleura is usually injured when the heart is wounded, further tearing of this membrane should be avoided, if possible, for it adds greatly to the shock of the patient. For that reason dissection of the pleura from the pericardium is best begun in the fourth or fifth interspace because of its usual reflection to the left at that point. Unless the skin wound is well to the right of the sternum, the approach to the heart should always be made to the left of the sternum, and the incision should be so planned that it can readily be enlarged if the heart wound is not easily located.

With these factors in mind, experience has shown that a long transverse incision extending well across the sternum gives the best exposure. By this approach, one or two ribs can be removed, and, if necessary, the adjacent costal cartilages cut and a portion of the sternum removed. The pectoralis major muscle is separated in the direction of its fibers and can easily be retracted from the surface of three ribs. One or two ribs with their costal cartilages are then removed. The internal mammary vessels are ligated and cut, the triangularis muscle is divided and the pleura displaced outward by careful gauze and finger dissection.

The pericardium will be tense, bulging and blue, and its pulsations will be weak and imperceptible. If the wound in the pericardium is seen, it should be enlarged, or, if not readily found, it is opened between stay sutures of silk. Occasionally the heart wound can be located before the blood and clots are removed before the heart starts bleeding profusely. If it is not immediately seen, the blood and clots are removed by suction. When the intrapericardial pressure is relieved, the bleeding becomes marked, as the contractions of the heart increase in force. When the wound is located, and it is most often found in the right ventricle, its closure is facilitated by placing the index finger of the left hand over it. In this way the bleeding will be impeded sufficiently to allow the passage of a suture directly under the finger. This is left untied for the moment and is held in the left hand for traction and hemostasis while other sutures are placed and tied. They should pass well into the substance of the muscle, but not into the chamber of the heart. Fine black silk on curved calyx-eye needles is the material of choice. Heart muscle is extremely friable, and for this reason, the finger should not be placed in the wound, and sutures should be tied with only enough tension to approximate the edges.

Injuries to the coronary vessels may require ligature, but are not necessarily fatal, unless the patient is old or the vessels are already the seat of sclerosis.

Wounds of an auricle, or the right ventricle behind the sternum, or in the lateral or posterior portion of the left ventricle, are difficult to close because of their position. Here the placing of a stay suture through the apex, as advocated by Ballance[7]

and by Beck[8], is of value in rotating the heart into a position where sutures can be placed.

Hemorrhage from a wound of the intrapericardial portions of the great vessels may be checked by passing the Trendelenburg probe behind them and impeding the flow of blood until sutures can be placed.

After suture and control of the hemorrhage the pericardium is cleansed by suction and flushing with salt solution. The pericardium is loosely closed with interrupted sutures of silk, leaving sufficient space between the sutures for the escape of any fluid which may accumulate. Occasionally the heart dilates to such an extent that complete closure of the pericardium is impossible. The muscle, fascia and skin are then closed without drainage.

After operation the patient should be placed in an oxygen tent. Fowler's position will usually facilitate breathing. Morphine should be given in sufficient amounts to insure quiet and rest.

Since the pleura and lung are often injured at the time of the heart injury, hemopneumothorax is frequently present. If its extent is such as to cause embarrassment of respiration, aspiration of the chest should be done, but in the absence of symptoms it is better to allow absorption of the air and blood.

Immediate prognosis depends largely upon the interval between injury and operation. Delay may cause death from hemorrhage or tamponade or both. It likewise depends upon the character and extent of the injury; a bullet usually causes two wounds of the wall or septum with greater hemorrhage and loss of tissue. The location of the wound is of prognostic importance; about 80 per cent with wounds of the right ventricle recover. This is probably because the approach to this chamber and its sutures is easier. Wounds of the auricles and the great vessels are more hazardous because of the difficulty of approach and suture of these thin-walled structures.

The postoperative prognosis is dependent upon infection. Pneumonia and purulent pericarditis are the cause of death in 75 per cent of the operative cases ending fatally. While pericardial adhesions undoubtedly form after these injuries, they are not of such a character as to produce symptoms either by constriction or by increasing the work of the heart.

Cardiac Rupture and Contusion. Another type of cardiac injury which undoubtedly occurs with greater frequency than is generally supposed results from crushing wounds, usually from automobile accidents. Many are immediately fatal and are due to rupture of the heart, lungs or great vessels as a result of compression of the thoracic viscera or penetration of the heart by broken ribs or sternum. Bright and Beck[9] collected 176 instances of injury to the heart following non-penetrating wounds of the chest and have called attention to this type of injury as a common, though frequently overlooked cause of death.

Certainly there is no reason to believe that the heart, situated as it is between the sternum and the spine, is not subject to contusions of considerable severity; nor is there any reason to believe that recovery does not take place in the majority of instances. Other organs, notably the kidneys, are frequently the recipient of contusions from which they completely recover. The most common cause of such an injury is an automobile accident in which an individual is suddenly thrown forward against the steering wheel. The sternum and ribs may be broken, and their ends directly injure the heart, or the sudden compression of the heart may injure it, although a break has not occurred.

One can only speculate as to the exact nature of these injuries or as to the manner in which they are produced. In patients that survive there is probably a contusion of the heart muscle with some hemorrhage into the myocardium or gross hemorrhage into the pericardium.

Little attention has been paid to non-penetrating heart lesions which are not fatal. Any patient who is struck in the chest must be suspected of such an injury, particularly if such symptoms as precordial pain, dyspnea, and tachycardia are present. Persistence of these symptoms, together with irregularity of the heart, cyanosis, and

a peculiar tick-tick quality of the heart sounds, makes the diagnosis almost certain.

Cases of this kind give rise to speculation as to the eventual outcome, and raise many difficult medicolegal questions. Cardiac neuroses and malingering must always be considered, especially where the predominating symptoms are cardiac pain and shortness of breath. However, if cardiac symptoms develop following an injury to the chest in a patient previously well, it must be assumed that the symptoms are the result of that injury.

The treatment is entirely symptomatic. The chief reliance is to be placed on morphine and sedatives for quiet and rest, and on oxygen for dyspnea and cyanosis. Digitalis may be given but it is of doubtful value. Above all, a patient with even a suspected cardiac lesion should be confined to bed until all symptoms have subsided.

Suppurative Pericarditis

The condition is frequently overlooked because it is usually a complication of infection elsewhere, and its symptoms are overshadowed by the primary disease. The continuance of a septic course after pneumonia or empyema should make one suspicious of its presence

General symptoms are the same as those of infection elsewhere; fever, usually picket-fence type; chills, leukocytosis, sweating, anorexia, and rapid wasting. The pulse is rapid, usually paradoxical. There may be pericardial or substernal pain, dysphagia, and difficult breathing. The neck veins are distended and there is a pallid cyanosis. Cardiac tamponade is evidenced by a weak pulse, distant heart sounds, a high venous and a low arterial pressure.

The area of cardiac dullness is increased, and at some time in the course of the disease a friction rub may be noted. Frequently the liver can be felt. The roentgenogram is of great value in accurately determining the size and contour of the pericardial shadow, and fluoroscopic examination will show a decrease or even absence in the cardiac pulsation.

Certain diagnosis can only be ascertained by puncture but this is an extremely dangerous procedure. Numerous cases of injury to the heart or coronary vessels with subsequent bleeding have been reported and infection may follow the course of the needle into the pleura or lung. If it is done, the safest place is at the left costoxiphoid angle, directing the needle upward and backward. By this approach the pleura is not entered and the needle reaches the lower and posterior part of the distended pericardial sac. Even with the pericardium distended with fluid the heart assumes an anterior position and pus located posteriorly and laterally may be missed if the puncture is carried out anteriorly. On the whole it is safer to expose the pericardium by operation.

The pericardium may be approached for drainage by a number of methods. The incision usually employed is the hockey stick one along the left lower edge of the sternum and extending out over the fifth and sixth costal cartilages. After the deep structures have been incised and retracted, about 2 inches of the fifth cartilage is removed and the wound further enlarged by removal of a portion of the sternum. The internal mammary vessels are ligated and cut. The triangularis sterni muscle is incised and the edge of the pleura, which can be seen overlapping the pericardium, is carefully pushed back to the left. Should the pleura be accidentally opened, the operation should be delayed and the wound packed for forty-eight hours in order to allow adhesions to close the pleural opening. The pericardium is best opened between stay sutures of fine silk. There may be fine adhesions about the heart which should be separated gently with the finger. A small catheter can be passed to each side of the heart and behind it for irrigation with saline solution. The edges of the pericardium are sewed to the skin or subcutaneous tissues to prevent too rapid closure, and the catheters, which are left for drainage, need not remain in place more than two or three days. Frequent changing of position will facilitate drainage, particularly if the patient lies on the abdomen several times a day.

Early operation is imperative and should be done even before fluid becomes thick. It

is, therefore, classed as an emergency operation because the rapid accumulation of pus will produce cardiac tamponade, and death may result from this condition as well as from a generalized infection.

Without operation practically all patients die. With drainage, the mortality is about 50 per cent, depending largely upon the nature of the primary infection. If it follows pneumonia or empyema or trauma, the prognosis is good, but if it is but a part of pyemia, the result is usually fatal.

PULMONARY EMBOLUS

There is nothing which produces such a feeling of helplessness on the part of the surgeon as a pulmonary embolus. It frequently comes without warning in a patient believed to be recovering, and the result is usually fatal. In half the cases death takes place within five minutes but others may survive for several hours. It is to be looked for where large veins have been ligated, or where phlebitis follows operation.

Pulmonary emboli account for about 6 per cent of all deaths following operation, and surgical attempts to remove them should always be considered. Since it is "difficult to fix indications for operation" (Nystroom), and many apparently hopeless cases spontaneously recover, the question arises whether the dangers of operation justify its performance.

Trendelenburg described the symptoms of pulmonary embolism as "sudden collapse, pallor, lividity of the lips, loss of pulse, together with deep and distressed respiration." It is usually accompanied by vomiting, a sense of constriction in the chest and the fear of impending death. Since these symptoms and signs are similar to those of coronary occlusion, every effort should be made to differentiate between these conditions. If conditions are suitable for operation and the operating team has been trained for its performance, the patient should be immediately moved into the operating room and prepared for operation.

Trendelenburg's original procedure was done through a T-shaped incision through which a portion of the second rib and its cartilage was removed. He purposely opened the pleura and exposed the pericardium. The pericardium is opened and a catheter is passed through the great sinus by a special instrument and with this the aorta and pulmonary arteries can be constricted. The artery, which lies anterior to the aorta, is then opened for a distance of 2 cm. and clots removed by forceps and suction. It must be remembered that the left pulmonary artery passes directly to the left, whereas the right is directed posteriorly. After removal of the clots, the opening is held together by a curved clamp and the wound sutured with continuous silk and reinforced with interrupted sutures of the same material.

If the heart has stopped beating, it should be gently massaged at the apex between the thumb and first two fingers and 1 cc. of 1:1000 solution of adrenalin should be injected into the heart muscle.

The wound in the pulmonary artery is closed, the pericardium is approximated with interrupted sutures of silk and the wound closed in layers with sutures of the same material. This operation has now been performed over 100 times and approximately fifteen patients have survived the operation.

RESUSCITATION OF THE HEART

Sudden heart failure is a specter which constantly confronts the surgeon, for although it rarely occurs, in the majority of instances resuscitation is impossible. The attributable causes are many and varied. Chief among these are mechanical disturbances to the heart itself during operations upon that organ and the pericardium. Traction or pressure may cause fibrillation or arrest, and is a signal for temporary abandonment of the procedure until normal rhythm is established. Any operation within the chest, such as a lobectomy, the removal of a mediastinal tumor, or even the aspiration of the pleural cavity, may bring about cardiac standstill.

Of more practical importance is the occurrence of circulatory collapse during the performance of an operation outside the chest. While the exact cause is unknown, it follows deep anesthetic narcosis, hemorrhage, shock, and "status lymphaticus."

Often the heart stops without warning at the beginning of an operation—at the time of the skin incision—and this is therefore considered the result of a nervous reflex.

Whatever the cause, attempts have long been made at resuscitation, although progress has been impeded by inability to reproduce the condition experimentally except by narcosis or operations upon the heart. At the time when chloroform was generally used, cases were numerous and resuscitation experiments were begun.

The physiologic basis for resuscitation attempts is well summarized by Hyman[10] (1930): "The success of the intra-cardiac injection procedure . . . is apparently due more to the effect of the puncture wound made in the wall of the heart than to the chemical substance injected. The myocardium of the normal asystolic heart rapidly becomes irritable with the onset of anoxemia. Under these conditions any mechanical stimulation may irritate the heart to automatic contraction, and the success of massage and percussion of the heart for resuscitation can be explained on this basis. The puncture wound made by the injection needle becomes a focus of increased irritability, from which a stimulus for myodium is an operation which in my opinion cardial contraction may be developed."

The resuscitation methods generally employed are (1) needle puncture, (2) cardiac injection, (3) cardiac massage, or (4) a combination of these.

Puncture or injection is usually done in the right ventricle, the needle being passed directly backward in the fourth or fifth interspace close to the left side of the sternum. When the resistance of the heart is felt at a depth of 4 to 5 cm., the needle is then thrust into the heart wall. If the contraction occurs at this time it will be easily noted by the movement of the needle.

Many substances have been advocated for injection, including strophanthin, camphor, digifolin, caffeine, and adrenalin. The latter, 1 cc. of a 1:1000 solution, is the drug most frequently used.

Hyman advocates puncture of the right auricle, on the basis that the auricles are more sensitive to stimulation and that normal ventricular contractions follow the auricular extra-systoles initiated by the puncture. For this a curved needle is passed through the third interspace close to the right border of the sternum. "The needle is directed toward the midline, so that the curve carries the point under the sternum."

The heart is reached for massage by one of three routes: (1) directly through the chest wall; (2) by abdominal incision; and (3) by incision through the diaphragm from below.

Exposure of the heart by opening the chest is too hazardous and time-consuming, and such a procedure would interfere with the giving of artificial respiration. Massage through the abdomen without opening the diaphragm is the method generally employed, particularly if indicated during an abdominal operation. If the abdomen is not already opened, incision is made in the middle of the epigastrium and the right hand passed below the relaxed diaphragm and just over the liver. Pressure is then made on the heart twenty or thirty times a minute.

By the same abdominal approach the diaphragm may be incised for direct massage, but this operation is difficult and productive of shock. It must be remembered that cessation of the heart beat is usually accompanied by respiratory failure, *and artificial respiration must be done at the same time.*

The demonstration that heart wounds could be treated successfully by surgical means led to speculation as to the possibility of treating non-traumatic lesions of the heart with operation. Brauer in 1902 removed the bony precardial structures for mediastinopericarditis. In the same year, Sir Lauder Brunton suggested that mitral stenosis might be susceptible to surgical intervention. Twenty years later Allen and Graham constructed a cardioscope based on the principles of the cystoscope through which the valves of the heart might be divided and Cutler operated upon several patients with mitral stenosis by dividing the valves. In 1900, Delorme suggested the removal of the pericardium for constrictive pericarditis and the first successful re-

sult for this condition was obtained by Rehn in 1920. This operation has now been successfully performed on numerous occasions.

Further advances are the relief of pain of angina pectoris, the creation of a new blood supply to the heart, the ligation of the patent ductus arteriosus, the suture of cardiac aneurism and the removal of pericardial tumors.

THE SURGICAL RELIEF OF CARDIAC ISCHEMIA

The importance of the collateral blood supply to the heart was first emphasized by the work of Hudson, Moritz, and Wearn. They established the fact that collateral channels might reach the heart through adhesions of the pericardium. Beck has attempted by surgical means, and in some instances with success, to bring a new blood supply to the heart by transplanting to the pericardium and the myocardium a pedicle flap composed of pectoral muscle.

At about the same time, and working independently, O'Shaughnessy described an operation in which an omental pedicle graft was brought into the diaphragm and attached to the heart and by injection studies he was able to demonstrate vascular anastomoses. Other operators as well as Beck and O'Shaughnessy have augmented these procedures by the introduction of foreign material, such as powdered bone, in order to facilitate the production of adhesions. This procedure seems to be based on both scientific and physiologic principles, and while at the present time it has been attempted only on those with advanced disease, it is believed that in the future it may be offered to those in the earlier stages.

CHRONIC CONSTRICTIVE PERICARDITIS

Infections of the pericardial cavity may lead to adhesions between the pericardium and the epicardium. String or band adhesions not constricting the pericardium may be considered benign and non-disabling. Even non-constricting, generalized adhesions between the epicardium and the myocardium may produce no disturbance of cardiac function. Of more frequency is the condition in which the heart is actually compressed and constricted by dense pericardial adhesions. It may be defined as a thickening and constriction of the pericardium or epicardium, or both, to such an extent that there is interference with the normal contractions of the heart. The etiology is in some cases obscure but it is generally agreed that rheumatic heart disease and tuberculosis are the most common causative agents. In general the symptoms are those of weakness, swelling of the abdomen and generalized edema. The most common signs are engorged veins, enlarged liver, ascites and peripheral edema. The heart is not enlarged and the heart sounds are weak. The rate is usually rapid. The blood pressure and the pulse pressure are usually low. A paradoxical pulse; that is, a pulse which is diminished on inspiration, is usually present. Under the fluoroscope, pulsations of the heart are usually greatly diminished or even absent. Calcification of the pericardium is not unusual.

The operative treatment consists in turning back a large flap of skin together with pectoral muscle overlying the left side of the heart, the removal of the third, fourth, fifth, and sixth ribs and costal cartilages, and, if necessary, a portion of the sternum. By careful dissection the thickened and adherent pericardial scar is then removed from the heart. Treatment of these patients by operation has long passed the experimental stage and has been performed in many instances with gratifying success.

DECOMPRESSION FOR ENLARGEMENT OF THE HEART

Acting upon the same principles that a tamponade of the heart or constrictive adhesions exert pressure which interferes with the cardiac action, Alexander Morrison proposed "to relieve the pressure when the mere bulk was the chief feature in the case." It was his belief that a heart greatly enlarged may be further embarrassed by confinement in the bony chest wall. This procedure has been followed on a number of occasions and frequently with good results. After turning back the musculocutaneous flap the ribs overlying the heart are removed.

The Ductus Arteriosus

The ductus arteriosus plays an important part in the fetal circulation. Although originally described by Galen, its true function was first precisely explained by Harvey in 1628. Its discovery has been incorrectly ascribed to L. Botallus, who gave an inaccurate description of it in 1565.

The pulmonary arteries are small in the embryo and the wide and open ductus arteriosus shunts most of the blood from the right ventricle into the aorta. Only such blood as is needed to nourish the lungs passes through the pulmonary vessels. At birth the lungs expand, the pulmonary arteries dilate, the duct usually closes, and is converted into a fibrous cord.

The rare occasions on which this shunting vessel fails to close leaves a fistula between the aorta and pulmonary artery. As in arteriovenous fistulae elsewhere in the body, the resulting symptoms will largely depend upon the size of the opening between the two vessels and the presence of other complicating cardiac anomalies. Since pressure in the aorta is usually greater than that in the pulmonary artery, the flow is usually from the systemic into the lesser circulation.

Prognosis with this type of lesion is variable, depending largely on the amount of blood shunted through the duct and the presence or absence of other cardiac anomalies. The presence of a small duct alone is not incompatible with life or health, and it must be remembered that closure may take place even after a child is several years old. Moreover, the patent duct may serve as a compensatory mechanism whereby venous blood reaches the lung in cases of pulmonary stenosis, or where it serves as a bypath to the aorta in coarctation of that vessel. Under such conditions its occlusion would bring about a rapid death. However, it may persist without other abnormality. Abbott has shown that approximately one-third of the cases exist without other congenital defects.

In 1907 Munro suggested that a patent ductus might be ligated with benefit. It was not until 1939 that the first successful operations were performed and reported by Cross. The operation as performed by him is as follows:

1. A transverse incision is made either just above or just below the breast tissue on the left side and extends from the sternal margin to the anterior axillary line. The pectoral muscles are divided in the direction of their fibers and the second and third costal cartilages are cut near the sternum but need not be removed.

2. The pleural cavity is entered through the third interspace and the lung is allowed to collapse.

3. The arch of the aorta is then identified as well as the vagus nerve and the phrenic nerve. The mediastinal pleura is then entered by an incision which follows the phrenic nerve for seven or eight centimeters.

4. The loose areolar tissue overlying the pulmonary artery and the aorta is then separated. The ductus lies just distal to the origin of the left subclavian artery and the recurrent laryngeal nerve arises from the vagus and passes around the aorta just posterior to the ductus. The identification of these structures together with pressure which will obliterate the thrill enables one to locate the ductus accurately. It is extremely short and therefore the dissection is tedious and difficult and should be done with extreme care lest an opening be made into it or into the pulmonary artery. When it is accurately identified it is ligated with heavy braided silk. The chest wound is enclosed in layers and the lungs inflated by operative pressure as the last stitches are made.

Results in the reported cases have been excellent, and if proper care is used in selection of these patients their operation mortality rate is extremely low and cardiac failure as well as bacterial endocarditis are entirely eliminated.

The pain of angina pectoris can be relieved by medical means in a majority of instances, therefore the relief of pain by operative means is reserved for but a small percentage of patients and it is only when medical measures have failed and when the patient suffers while at rest from severe attacks, that an operative procedure should

be considered. In this small percentage of patients many have been relieved by total thyroidectomy, by the injection of alcohol into the upper dorsal sympathetic ganglia, and by thoracic sympathectomy.

It is but natural for a patient with heart disease to seek surgical aid after failure of medical care. In most instances, the physician's aid is limited to the relief of suffering, to increasing the duration of life and to prolonging the period of economic usefulness. Chronic heart disease as it is generally understood, is, by its very nature, incurable.

In passing, it should be mentioned that certain types of cardiac disease may be relieved, or even cured, by extracardiac operations. Chief among these is the heart failure produced by thyrotoxicosis and arteriovenous fistula. It is not beyond the realm of possibility to predict that many diseases of the heart, like those of the brain, the lungs, and other organs, will in a greater measure be removed from the realm of medical treatment and be taken over by the surgeon. The chief difficulty in cardiac surgery is the narrow margin of safety under which the heart works and the fact that no satisfactory means has been found for sustaining artificially the function of the heart while its circulation is suspended.

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The first of a series of pamphlets outlining medical provisions for civilian defense, designed for the organization of emergency medical field units, entitled "Emergency Medical Service for Civilian Defense" Bulletin No. 1, was recently issued by the office of the Civilian Defense.

The Bulletin outlines in detail a basic plan for the organization and expansion of hospital facilities along both seaboards and in industrial areas in the interior. It outlines plans for the rapid expansion of nursing facilities through intensive training of adequate numbers of volunteer nurses' aides and other nursing auxiliaries.

VULVOVAGINAL MYCOSIS

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There are many interesting and unanswered problems concerning vulvovaginal mycosis: why some women have these infections and others do not; what causes the symptoms, particularly the itching; why there are carriers from whom yeast organisms can be cultured, yet who have no symptoms; why only particular strains of certain genera give symptoms and, finally, a successful management and treatment of this distressing condition.

Fig. 1. Typical appearance of culture on Sabauroud's medium. Diagnosis can usually be made by appearance of colonies.

Interest was centered on this latter problem in the Obstetrical Division of the Colored Unit of Grady Hospital, Atlanta, because of failure to control and relieve the symptoms of vulvovaginal mycosis by using the recommended treatments. The percentage of patients attending the clinic who had positive vaginal yeast cultures was found to be high. Vaginal cultures had been taken on 112 consecutive patients and 45 of these cultures or 40 per cent were found to be positive. This incidence of infection was similar to that reported by Hesseltine[1] at the Chicago Lying-In Dispensaries where

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Acknowledgment is made of the technical assistance of Miss Alice Brim.

Fig. 2. Microscopic appearance of conidia from one of the colonies shown in slide 1 (oil immersion). Mycelia can only be seen in fresh, wet smears or cultures of very long standing.

he found that 41 per cent of the colored pregnant women had positive vaginal yeast cultures.

The patients treated were selected patients in that all had voluntarily sought relief from the symptoms. All had positive vaginal yeast cultures and some of the signs and symptoms that are so excellently described by Plass and coworkers[2], i.e.:

"The vulva is slightly swollen, tender, with a reddish blue under-color and a thin, grayish surface. The epithelium appears definitely injured. Abrasion or excoriation may have resulted from scratching. There is an increase of local heat subjectively and the area is warm to touch. The area most often involved extends from the hymenal ring or slightly above or, in some instances, outward. It usually remains limited to the moist surfaces, but in the severe cases it extends upward to the mons veneris, outward to the crural fold, and posteriorly to encircle the anus. The labia minora with the prepuce shows the greatest reaction usually. Some small whitish areas (thrush spots) or caseous material may be observed. If the surface epithelium is rubbed or scraped, the superficial surface of the epithelium may be lost over small areas leaving a reddened but non-bleeding base. One may gather the impression that the vulva appears 'cooked' or 'boiled.' The appearance of the vulval mycosis may resemble closely an early chronic atropic dermatitis of the vulva (krauris).

"In atypical cases the surface may appear to be actutely inflamed, while in some mild cases very little reaction takes place. In the chronic cases hypertrophy of the epithelium and even pigmentation may occur. The not uncommon secondary bacterial invasion may produce a chronic dermatitis. Thus the appearance of diabetic vulvitis and mycotic vulvitis are identical. The only constant symptom is pruritus. Other symptoms of tenderness, pain, discharge, heat, etc., are variable and not necessarily related to the severity of the reaction. One of the most common of the symptoms is the itching which is worse at night."

Fig. 3. Demonstration of author's method of culture on Sabauroud slant where an ordinary thermos bottle was used as an incubator.

There were 25 patients on whom the recommended treatments for vulvovaginal mycosis were tried. The various treatments neither relieved symptoms nor gave negative cultures. The treatments used were: gentian violet 1 per cent as a topical application combined with

Fig. 4. Slide showing a rather typical vulval mycosis, the white areas being collections of caseous material or thrush spots. This patient also had a vaginal infection.

Fig. 5. Slide showing extension of the infection laterally and posteriorly. The vulva had a "cooked" or "boiled" appearance.

sodium bicarbonate douches at home;[3,4] gentian violet 1 per cent and acriflavine ½ per cent in a glycerine base, painted in the vagina and on the vulva combined with lysol douches at home;[5] Lugol's solution ¼ to

Fig. 6. Patient with an infection of long standing, with some "venereal warts" or piling up of the epithelium.

½ strength with various combinations of douches;[3] painting the entire vagina and vulva with gentian violet and using tablets at home consisting of 95 per cent lactose and 5 per cent citric acid.[6] The strength of the gentian violet was less than that recommended by Karnaky because on one patient on whom 5 per cent gentian violet was used there was so much pain and such a severe reaction that it was feared that its continued use would discourage attendance at the clinic. In none of these patients was entire relief obtained from the symptoms or a cure had as determined by culture.

In further search of some preparation which would control vulvovaginal mycosis in clinic patients, a proprietary product known as trichotine was found. This is a powder consisting of aromatic oils, sodium lauryl solfonate and thymol in a sodium perborate base. Interest was centered on this preparation because it contained thymol and its use in treatment caused the patient no discomfort. Hesseltine[7] had previously shown that out of 84 substances tested in vitro against several strains of monilia there were only a few that showed any fungicidal action on this type of infection and thymol was one of these substances. Trichotine in solution was used in treating these patients and it was noted for the first time that there was some relief of their symptoms.

A chemical analysis of trichotine was made and it was found that the thymol content was low, being only 0.05 per cent. Sodium perborate alone was tested against trichotine as it is prepared by its manufacturers and the latter proved to be the better fungicidal agent. However, trichotine in vitro in 10 and 20 per cent solutions did not inhibit the growth of yeast organisms even after 60 minute exposure intervals. To increase the efficacy of the drug thymol was added to 0.2 per cent by weight. This powder with the increased thymol content was tested and it was found that in vitro in 10 per cent solutions it would kill yeast organisms after

Fig. 7. Patient with an infection of long standing which may be mistaken for a chronic atrophic dermatitis of the vulva.

30 and 60 minute exposure intervals (Table 1). The fact that powder of this strength would not kill yeast organisms upon immediate contact with them was not felt to be important because the powder when used in solution as a douche or swabbed in the vagina locally is not washed out after use, but continues to function in the vagina as a fungicidal agent. The lowering of the surface tension by sodium lauryl solfonate also plays an important part in the fungicidal action of this preparation. This preparation consisting of: thymol 0.2 per cent, menthol 0.1 per cent, oil of wintergreen 0.1 per cent, eucalyptal 0.1 per cent, sodium lauryl solfonate 3 per cent and sodium perborate q.s. was still well tolerated by the patient.

Twenty-eight patients who had voluntarily sought relief of the above described symptoms were treated with this preparation as now prepared by our hospital druggist. Treatment consisted of cleansing the vagina and vulva thoroughly using cotton balls soaked with 10 per cent (by weight) solution of the powder at weekly intervals. The patients were instructed to take bidaily douches at home using 1 tablespoon of the powder to 1 quart of water and, when able, to assume the knee chest position to take the douche.

Fig. 8. An attempt to show only vaginal involvement. The whitish areas are thrush spots. Patient had very little discharge and no involvement of vulva.

negative. There were 13 patients with proved yeast infection who did not return for adequate follow-up examinations. There were no complications caused by the use of the powder. It was not necessary to wear vulval pads with this type of treatment in contrast with some of the other types of treatment and in general the patients were easier to manage and more cooperative. Further, the thymol content could be varied if necessary to suit the hypersensitive or insensitive patient although over a 0.5 per cent thymol content was not recommended.

I do not believe I have written the final chapter in the treatment of vulvovaginal mycosis, but rather to quote Hesseltine, who has done the most extensive work in this field, "definite improvement can still be made in mycotic therapy."[7] I do feel, however, that in this group of patients and in a group of private patients not included in this paper, satisfactory results have been obtained by following the above outlined treatment.

TABLE I

4 c.c. ORGANISMS 4 c.c. SOLUTION	EXPOSURE INTERVALS BEFORE TRANSFERS			
Dilution of Powder	5 Minutes	10 Minutes	30 Minutes	60 Minutes
5% solution (0.01% thymol)	Growth	Growth	Growth	Growth
10% solution (0.02% thymol)	Growth	Growth	No growth	No growth
20% solution (0.04% thymol)	Slight growth	No growth	No growth	No growth

In only 15 of the 28 patients treated were follow-up examinations attainable and one of these patients was a severe diabetic in the hospital. She was included in this series because of the dramatic cure which resulted in spite of the severity of the infection she had. In fact it was thought by the medical men attending her that the severe vulvovaginal infection was retarding the control of the diabetes.

All patients were cured symptomatically. The average duration of treatment was two to three weeks. There was a cure as proved by culture in 11 patients who received adequate follow-up examinations. The criterion for a cure was two successive weekly cultures that were

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INTUSSUSCEPTION ASSOCIATED WITH A POLYP IN A MECKEL'S DIVERTICULUM

Report of Case

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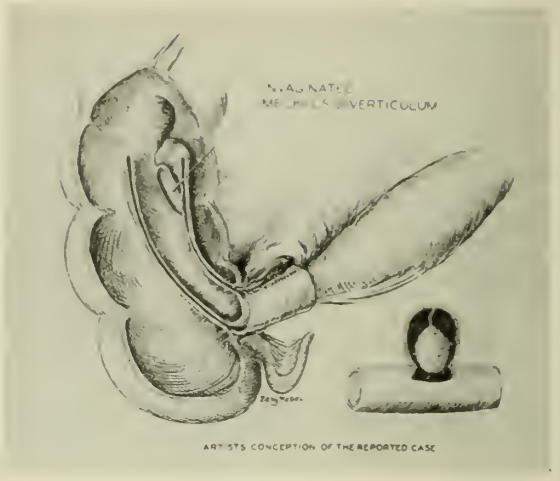
Eight cases have been reported in which a polyp in a Meckel's diverticulum was associated with an intussusception. Because of the rarity of this condition the following case is of interest.



The patient, a white boy aged 14, was admitted to the West Baltimore General Hospital Oct. 21, 1938, complaining of right lower quadrant pain of three hours' duration. While the patient was seated in school about three hours before admission he experienced a cramping sensation to the right of the umbilicus. This sensation gradually became more severe, causing the patient to twist and squirm in his seat. One hour before admission the patient left school and on arriving home he vomited. He then lay down on the bed, where he doubled up and writhed with pain. He had passed two normal stools since the onset of his illness, one and two hours respectively before admission.

The patient was a well developed and nourished boy whose skin was an ashen gray. The temperature was 95° F. by rectum and the pulse rate was 48. The quality of the pulse was good and the rhythm was regular. The tongue was coated. The abdomen was flat and symmetrical, and no visible peristalsis was present. Moderate tenderness was present over the entire right abdomen, being slightly more marked in the right lower quadrant. Rigidity out of all proportion to the tenderness was present over the right abdomen and was more marked in the right lower quadrant. It was not possible to penetrate the abdominal rigidity and palpate the intra-abdominal organs. Auscultation of the abdomen revealed hyperactive intermittent peristalsis. The blood Wasserman was negative and the leukocyte count was 12,500 with 86 per cent polymorphonuclear neutrophils. The urinalysis was negative.

A questionable preoperative diagnosis of acute appendicitis was made, but when the patient was anesthetized a mass the size and shape of an orange could be felt in the region of McBurney's point. Therefore, the preoperative diagnosis was changed to intussusception. A lower right rectus incision was made and the peritoneum was opened. A mass was felt in the region of the cecum, and when the bunching of the mesentery of the ileum was seen, the diagnosis of intussusception was confirmed. By traction the ileum (intussusception) was withdrawn from the cecum and ascending colon (intussuscipiens). About twelve inches of ileum were drawn out, and a depression was noted about twelve inches above the ileocecal valve. When this was turned right side out, it proved to be a Meckel's diverticulum. The diverticulum and the appendix were removed. On opening the diverticulum a fibrous polyp about the size of a walnut attached to the apex of the Meckel's diverticulum by a stalk was noted. The patient's postoperative course was uneventful. The sutures were removed on the sixth day, and the patient was discharged on the twelfth postoperative day. When he was contacted twenty-one months after the operation, he had no abdominal pain and the incision was well healed with no hernia.

The pathologic description stated that the specimen consisted of a Meckel's diverticulum about 3 inches long which contained a polyp which measured 2 by 2 by 1.5 cm. The polyp was soft and a rough nodular wall was present. On section the polyp showed compactly growing columns of peptic glands which contained some oxyphilic cells. The appendix presented no pathologic changes. The pathologic diagnosis was Meckel's diverticulum containing an adenomatous polyp which contained peptic glands.

Comment

The first case of a polyp in a Meckel's diverticulum associated with an intussusception was reported by Moroni in 1898. Harkins[9] in 1933 collected 160 cases of Meckel's diverticula which had been associated with an intussusception. Of these diverticula 26 per cent contained a tumor and one-third of the tumors contained pancreatic tissue. Of these tumors polyps were a relatively infrequent finding. The following table summarizes the important points concerning these cases.

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REPORTED CASES OF POLYPS IN MECKEL'S DIVERTICULA ASSOCIATED WITH INTUSSUSCEPTION

Author and date	Age and sex of patient	Symptoms and signs	Duration	Treatment	Pathologic Description	Result
Moroni[1] 1898	Male 26 yrs.	Acute onset with pain and vomiting.	?	?	Fibrous polyp the size of a cherry in a Meckel's diverticulum.	Death from renewed obstruction.
Ryan[2] 1907	Male 9 yrs.	Acute onset with abdominal pain and emesis.	?	12 inches of gut resected.	Polyp at the apex of a Meckel's diverticulum.	Death
Kothe[3] 1908	Male 23 yrs.	Previous attack. Acute onset with abdominal pain, emesis, and chills. Distension present.	5 days.	Resection of gut	At the apex of the Meckel's diverticulum was a polyp 6 cm. long.	Recovery
Fuchsig[4] 1921	Male 1½ yrs.	Frequent abdominal pain, abdominal pain, emesis, and a sausage-like tumor.	?	Resection of 60 cm. of small intestine.	Polyp 4 cm. long, the thickness of the little finger and shaped like a club.	Death
Picot[5] 1927	Male 13 yrs.	Had crises of pain. Appendectomy 2 years before. Abdominal pain, gut "growling," emesis. No passage of gas.	36 hours	Removal of diverticulum.	The bottom of the diverticulum contained a pedunculated tumor the size of a flattened walnut.	Cured
Mathieu and Davioud[6] 1927	Male 7 yrs.	Extreme diffuse abdominal pain. Stools abundant and bloody.	?	Intestinal resection.	In the end of the Meckel's diverticulum was a small polyp. Microscopic examination showed pancreatic tissue.	Cured
McDonald[7] 1928	Male 12 yrs.	Abdominal pain, absolute constipation, fecal vomitus, distention, ladder pattern of visible peristalis.	10 days	Resection of 9 inches of small intestine.	Thick polyp 3 inches long springing from the inner surface of a Meckel's diverticulum	Recovery
Holst[8] 1928	Male 12 yrs.	Periumbilical pain with nausea and vomiting. Right lower quadrant tenderness most marked at McBurney's point. No rigidity.	26 hours	Removal of Meckel's diverticulum.	The Meckel's diverticulum was thumb-sized and a stalked polyp the size of a pea arose from its inner surface.	Recovery
Bowen	Male 14 yrs.	Abdominal pain, vomiting, palpable tumor, pallor with subnormal temperature and slow pulse.	4 hours	Removal of Meckel's diverticulum.	The Meckel's diverticulum was about 3 inches long and contained a polyp which measured about 2 by 2 by 1.5 cm. On section the polyp contained peptic glands.	Recovery

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This case is from the practice of Dr. Ralph Mostwill.

From the Surgical Service of Dr. N. Clyde Marvel at the West Baltimore General Hospital.

The American Hospital in Nanking wins friendship of Chinese according to release sent out by the United China Relief. The University Hospital of Nanking, supported by American donations, handled an average of 9,702 patients each month in the last six months. The hospital is supported by the Associated Boards of Christian Colleges in China, and has expanded its services since the war began. Besides maintaining its 120 bed hospital on the University Campus, five health clinics are run in different parts of the city.

THE ROLE OF THE LIVER IN THE SURGICAL RISK

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Because we know the liver is the largest organ in the human body, and is capable of taking care of many times its normal functional demands, I am convinced that too often the physiologic function is minimized in consideration of pathologic processes; and the attendant risk in surgical procedures.

While primarily the surgeon's interest centers around the biliary system, when the role of the liver in the surgical risk is considered, it is especially important in evaluating the surgical risk in many other diseases and conditions.

A plea is offered for a more comprehensive knowledge of the anatomy, physiology and pathology of the biliary system, in order to recognize deviation from the normal.

The liver weighs approximately 1/40 of the human body or 1200 - 1800 grams. Its five lobes and five surfaces are compactly located in the upper right quadrant, snugly covered on the superior surface by the diaphragm.

The surgeon's greatest interest lies in the inferior and posterior surfaces. Here is seen a system of important structures. The portal fissure, 1½ to 2 inches long, transmits the portal vein, the hepatic artery, the subdivisions of the gall duct, the lymphatics and nerves, all of which are enveloped in a mass of areolar tissue known as Glisson's capsule.

The portal vein is situated posteriorily with the hepatic artery lying immediately in front to its left, and the hepatic duct immediately in front, and to the right. The umbilical fissure contains the round ligament, or obliterated remains of the umbilical vein. The fossa for the gallbladder is situated on the posterior, and under surface of the right lobe.

It is in this fossa which narrows posteriorily to a true fissure that one comes into contact with the intricate network of bile channels which gradually converge into the right and left hepatic ducts. These two ducts unite to form the common hepatic duct which is 2.5 to 3 centimeters long and only 5 to 6 millimeters in diameter.

After joining with the cystic duct of the gallbladder, the common hepatic duct is known as the common duct. Just before they enter by a common orifice, into the duodenum at the ampulla of Vater, the pancreatic duct most commonly enters into the common bile duct 7 or 8 millimeters above the papilla. This Y shaped anatomic constriction may easily account for a divergence of bile, in case of blockage in the common duct by stone or otherwise, along the pancreatic duct into the pancreas and result in acute and severe pancreatitis. The neck of the gallbladder is not always constant in position, but may curve around the gallbladder like the letter S. The blood supply to the gallbladder normally comes from the cystic branch of the hepatic artery, and usually divides into two branches opposite the neck of the gallbladder for supply to both sides.

Anomalies in these arteries are present in 7 per cent of cases. The cystic artery may cross in front of the common hepatic duct, and many times there is an accessory cystic artery to deal with. For this reason it is highly necessary to positively identify the cystic duct and artery before they are ligated and cut. Another anomaly sometimes seen is the presence of an accessory hepatic duct on the right side arising from the liver at the gallbladder fossa and empties into the common hepatic duct. Then, also may be seen an accessory cystic duct. It is easy to see that failure to ligate either or both of these accessory ducts when, as, and if present, would result in long, continued drainage and loss of bile.

Frank hemorrhage and injury to the common bile duct are the two great dangers in performing cholecystectomy. The common bile duct is only about 5 centimeters long and passes down to join with the pancreatic duct.

It has been shown by Allen that 20 per cent of patients having stones in the gallbladder will have stones in the bile ducts.

Many of these stones are small and pass through the ampulla of Vater unnoticed but many will not and the common duct must be explored. Here a technical point in cholecystectomy should be noted, namely, that many injuries of the common duct are made by attempting to remove the gallbladder from the neck first. In the presence of marked edema, adhesion, or difficult and deep approach, it is better to remove from fundus to neck.

Saline solution may be injected into the well of the gallbladder, thus producing edema and easy dissection by splitting Glisson's capsule and protecting the common duct.

Dilators such as Bake has described should be used with extreme caution since rupture and stricture of the ducts may follow. To irrigate ducts and gallbladder with saline is a safer procedure for the inexperienced. If dilators are used the ampulla of Vater should be explored since many stones lodge there and stricture is relatively frequent.

When one comes to consider the function of the liver, one is amazed at the number of recorded functions ascribed to this organ. Dr. John A. Wolfer, of Chicago, made the statement that physiologists have identified as many as twenty-two functions of the liver. It is to be remembered that the liver obtains its blood supply from both arterial and venous sources, the greater supply being venous, and coming from organs drained by the portal system. The very intricate arrangement around the hepatic globule itself, with regard to its circulatory mechanism, suggests that the liver is of necessity associated with an exchange of substances reaching the liver by the blood, and discharged from it into the blood. Only a few of the major functions of the liver will be noted.

1. Metabolism of carbohydrates.
2. Metabolism of proteins.
3. Metabolism of the constituents of bile, namely, bilirubin bile salts, and cholesterol. The part played by bile salts in the digestion and absorption of fats, and also their value as cholagogues has long been recognized. The part which the liver plays in the metabolism of cholesterol is not definitely determined.
4. The detoxifying function of the liver. This is perhaps one of the most important because of its protection against the numerous metallic poisons and microorganisms which are introduced into the system.
5. The liver is intimately connected with the coagulation of blood through the formation of fibrinogen. It is definitely felt that in injuries of the liver a disturbance of coagulation ensues, and that most probably this defect in the mechanism of coagulation lies in the formation of prothrombin, and it is also known that hemorrhages occur in both man and animal when vitamin K is markedly deficient.

The regenerative power of the liver, not truly a function, is one of the most remarkable in the human economy. Mann and Fishback have noted that when as much as 70 per cent of the total weight of the liver was removed, after a few weeks the remaining tissue had grown to its original normal weight. They further observed that the total hepatic tissue may be reduced permanently to as little as 15 per cent and the liver will be able to carry on its function provided a diet of high carbohydrates composed largely of milk and syrup is maintained. On the other hand, if proteins heavy in meat are given constantly, cirrhosis with ascites will develop, and death will ensue.

Jaundice

Jaundice is the result of bile pigment in the blood—bilirubin is derived from hemoglobin and is normally present in the blood from 0.5 to 1 milligram per 100 cubic centimeters. Clinical jaundice is not apparent until the bilirubin concentration rises to 5 milligrams or above.

The icterus index is of value in the amount of bile pigment retention in the blood and tissues, normally ranging from 4 to 8, with clinical icterus appearing at 15.

Three types of jaundice are recognized, all of which increase the hazard of the surgical risk, according to Heyd just 100 per cent.

1. Hemolytic jaundice.
2. Obstructive jaundice.
3. Hepatogenous jaundice.

Obstructive jaundice is of greatest interest to surgeons because of greater opportunity to afford relief. Three frank causes are:

1. Calculus.
2. Cicatrix.
3. Carcinoma.

All are associated with increased concentration of serum bilirubin and show a direct van den Berg reaction, while in the

hemolytic, the van den Berg is persistently indirect.

The laboratory findings in the hepatic or hepatogenous type are essentially the same as in the obstructive type. The determination of bile salts in the blood in cases of jaundice is a definite aid in the differential diagnosis of liver injury. In uncomplicated obstructive jaundice, bilirubin and bile salts are present. In liver injury from toxemia or long continued hepatic disorder, the bile salts disappear, hence the value of bilirubin determination.

Jaundice, therefore, remains our clinical and laboratory sign board in the preoperative risk. It only occurs when there is a disturbance of balance between the amount of bilirubin delivered to the liver for excretion and the capacity of the liver to properly carry out the process of excretion. This retains the amount of bilirubin in the circulation. It does not pass through the kidneys; it gives an indirect van den Berg reaction. It is not due to extraneous blocking of the biliary duct. The bilirubin may be excreted by the liver but may be blocked by obstruction in the larger ducts, therefore backs into the small canaliculi, ruptures into the tissues and blood sinusoids of the liver and is absorbed into the main channels of the vascular tree. The bile pigment is excreted by the kidneys; it gives a direct van den Berg reaction. This type of obstruction is seen in the graver forms of liver injury. Numerous tests have been tried for the differential diagnosis of the various types of jaundice. Few are of dependable value. The surgeon who is concerned with his operative mortality, particularly in obese patients, and patients obese or emaciated, who have passed middle life, is still demanding from the research centers some reliable test which will give a working interpretation of the liver reserve and its ability to withstand major surgical procedures, not only on the biliary system but on other organs as well.

We have long been careful to check heart reserves, blood pressure, and renal function in evaluating the surgical risk, but have blindly relied upon our knowledge of the long accepted teaching that the liver can and does maintain its function with even a small portion of its parenchyma. Only chaos and chagrin will come to the surgeon who fails to appreciate the role played by the liver in normal and pathologic entities.

What surgeon has not seen the temperature soar to 105-106° F. within twenty-four hours after operation, the anxious faces, the air hunger and the melting blood pressure? Too early for infection, or peritonitis and no evidence of hemorrhage, yet impending death is apparent. Such a horrible picture can only result from the absorption of a powerful toxic substance. The detoxifying function is one of the most important duties of the liver. If it becomes lessened by disease or trauma or otherwise, the patient may be able to carry on under ordinary routine, but any undue stress or strain such as would be necessitated in a major operative procedure would be more than such a patient could withstand. The anesthetic is to be carefully selected. Chloroform is practically out of the picture except in some rural areas for obstetrics and minor procedures. Boyce has shown that a drop in liver function followed anesthesia as follows:

Ethylene	21 per cent
Ether	25 per cent
Spinal	49 per cent

Ravdin, of Philadelphia, challenges the high percentage of spinal anesthesia because he is a strong advocate of its use and perhaps supports his patient prior to surgery in a way which counteracts the drop ascribed to spinal anesthesia.

Preanesthetic medication which does not depress the respiration is of advantage. The various barbiturates and small doses of morphine reduce by one-fifth the amount of inhalation anesthetic required. Cyclopropane, in the hands of a competent anesthetist, affords excellent relaxation and carries a high percentage of oxygen throughout the operation.

Rosenthal has shown that the liver is injured to a greater or lesser degree, following all types of anesthesia.

T. C. Davison, of Atlanta, Carraway and others, have reported excellent results in a large series of cases with pentothal sodium intravenously. These newer agents are

powerful anesthetics and induce surgical anesthesia with a blood concentration of approximately one-half that of chloroform and ether, therefore they must be given by competent anesthetists.

The bad risk liver patient will withstand an anesthetic and the operation better if the stores of glycogen and protein in the liver are adequate. The high carbohydrate preserves liver protein. The protein and carbohydrate replace liver fat and therefore prevent necrosis of liver cells during the long anesthetic.

Goldschmidt has shown that an adequate supply of oxygen during anesthesia will, if liver fat is not excessive, provide protection to the liver. This is a point in favor of cyclopropane since it permits 80 per cent oxygen during the anesthetic. The liver fat can be reduced, and that reduction maintained, by feeding a high carbohydrate diet for three or four days prior to operation, the administration of glucose for two or three days following the operation, and then the resumption of the high carbohydrate diet.

The open ether and nitrous oxide anesthetic have generally been accorded to be the least harmful to liver structure of the more generally used anesthetics, but Ravdin has shown that when ether concentration of 15 per cent, which is just 5 per cent less than air, is used, that marked liver cell degeneration occurs.

Inhalation anesthetics affect the liver parenchyma by direct action on the cells and by slowing the flow of blood through the liver, which produces anoxia.

Spinal anesthesia is the definite choice of many surgeons. In operations below the diaphragm excellent relaxation is obtained, and with proper support of vascular tension it carries no greater risk, perhaps, than the other accepted anesthetics. It has no direct action on the liver cells but may produce anoxia of the hepatic cells by slowing the blood current through the liver.

Surgical trauma during the operation is a tremendous factor in bringing down the liver function. Undue and rough manipulation, drastic pull with retractors, unnecessary gauze packs over intestinal viscera, drop in intra-abdominal temperature, resulting in a corresponding drop of pressure in the biliary system; the valuable loss of time required for surgery, decision, and procedure by the operator inexperienced in major work, all contribute to the vasomotor collapse which follows.

That a hepato-renal concurrent failure occurs is evident when one recalls that toxic substance reaching the liver through metabolic processes find the detoxifying power of the liver impaired, such toxic substances then must be picked up by the kidney and excreted as toxic products. The kidney reserve is much less than the liver and soon collapses, uremia and death ensue.

Because the liver failure appears first, and the renal collapse syndrome follows, I am firmly of the opinion that more attention paid to the liver risk before operation would decrease the incidence of hepato-renal failure after operation.

There has been an increasing interest in the "liver death" since Heyd, in 1924, first called attention to it. Many articles have been written, much research has been done and in 1939 The Congress on Hepatic Insufficiency was held in France, at which 130 papers were presented. The conclusion reached by many clinicians is that next to peritonitis the hepato-renal syndrome is the most common cause of death in biliary surgery. It is by no means limited to biliary surgery but to a lesser degree, perhaps, in many other types of surgery.

The thyroid crisis, for example, presents a similar picture; it responds to similar therapy, and when death ensues, autopsy reveals fatty infiltrative changes in the liver with necrosis of the liver cells.

Lahey, Frazier, Boyce, and many experienced surgeons have stated, unreservedly, that the most common cause of thyroid storms and thyroid deaths, is liver failure.

The Quick hippuric acid test in thyroid disease is similar in findings to liver disease.

Value of Diet

Starving animals and human beings alike show increased tendency to liver damage because of depleted protein content. Glucose has long been the sheet anchor in biliary and thyroid preoperative conditions. Althausen has shown two things in his ex-

haustive studies of glucose: first, that insulin is useless in glucose therapy and, second, that glucose given by mouth is far more effective than when given by vein.

Given a patient for an elective appendectomy under ether anesthesia who has received no preoperative treatment, Quick has demonstrated that there is an average drop of 25 per cent in liver function.

Glucose would certainly do no harm if given by mouth before and after most major operative procedures.

I have used the high carbohydrate and protein diet for 2 to 3 days prior to operation, and glucose intravenously for 2 days, then high carbohydrate diet resumed afterward in all biliary cases in thyroid cases and in thoracoplastic cases, with a definite clinical assurance that I have obviated many a "storm" in these cases. Glucose protects food stores of the patient to the extent of 600 - 1200 calories per day depending whether 5 per cent or 10 per cent solution is given.

Ravdin and Rhodes insist that a high carbohydrate diet, to which is added protein, affords the maximum protection to the liver; 2500 - 3000 calories should be given daily for several days in the following proportions:

Carhohydrate	70 per cent
Protein	25 per cent
Fat	5 per cent

It is most interesting to note that Whipple, Messinger, and Hawkins all working independently, have arrived at the same conclusion. When patients do not respond to glucose therapy it is usually because of fatty infiltration in the liver. Oxygen is of the greatest value in combating liver failure and should be used freely.

Repeated small blood transfusions is a quick and efficient way of replacing prothrombin and also markedly improves the oxygen saturatiaon of the blood. A diet rich in protein is protective to the liver.

A diet rich in carbohydrate is also protective to the liver in three ways:

1. It stores glycogen and maintains blood sugar.
2. It reduces the lipid content of the liver.
3. It preserves the protein content normally in the liver. Protein protects the liver by the intrinsic value of protein to any tissue.

If the diet carries a ratio of protein equal to 17 per cent of the total calories, the incidence of liver damage will be markedly reduced even in those in whom the fat content is high. Glucose increases the detoxifying power of the liver. It has been suggested by Rosenfeld that it not only prevents necrosis of liver cells, but is useful in the treatment of such a condition.

High fat diet induces maximum susceptibility of hepatic parenchyma.

Davis, Hall and Whipple, have stated that a high carbohydrate diet will regenerate damaged liver tissue at the rate of 100 grams per day.

Obviously, the concentration of glycogen in the liver tissues is the objective. This can best be done quickly by giving glucose rather than by a high carbohydrate diet.

Liver Functional Tests

The liver is both an excretory and secretory organ. Any series of tests must of necessity estimate the ability of the liver to metabolize:

1. Glycogen as in the galactose tolerance test.
2. Proteins as in the amino acid test.
3. Hepatic integrity as in the iso-iodeikon test.

FUNCTIONAL TESTS OF THE LIVER AS TO ITS ABILITY TO EXCRETE POISON

1. Iso-iodeikon in which, if 35 per cent of the dye is retained for ½ hour, grave symptoms lie just ahead.

2. Bromsulfalein in which retention of the dye in the blood at 30 minute intervals represents the ability of the liver to throw off metallic substances. This dye is excreted by the liver.

3. DeCourcys' blood iodine test, in which the iodine content of the blood markedly increases in long standing cholecystic disease and hepatic insufficiency.

4. Quick's hippuric acid test for the detoxifying function of the liver. This test is the simplest, and I believe the most reliable one which we have at the present time. In principle it depends upon the ability of the liver to excrete normally hippuric acid from the synthesis of benzoic acid and amino-acetic acid. It should be made prior to operation and daily for three days after operation if any suggestion of hepato-renal failure is noted. The technic is given below:

One hour after a light breakfast of coffee and toast the patient is given 6 grams of sodium benzoate in 30 cubic centimeters of water (this may be flavored with oil of peppermint if desired).

This is immediately followed by ½ glass of water and patient is requested to void and this specimen is discarded. Hourly specimens of urine are then collected on the hour, and for four hours. These specimens should be tested while fresh.

The specimens of each hour are measured, and transferred to a beaker. If the volume of any specimen exceeds 100 cubic centimeters it is acidified with a few drops of acetic acid, and concentrated in a water bath to about 50 cubic centimeters. Each of the four specimens is acidified with one cubic centimeter of concentrated hydrochloric acid and then tested with litmus paper.

If the paper does not turn blue, more acid must be added. Each specimen is vigorously stirred until the precipitation of hippuric acid is complete and then is allowed to stand for one hour at room temperature. The crystalline hippuric acid is filtered off on a small filter plate or Buchner funnel, washed with a small quantity of cold water, and allowed to dry in the air. The dry samples of hippuric acid are weighed (to the second decimal place is sufficiently accurate). If a balance is not available, the precipitation may be dissolved in hot water and titrated with two tenths normal sodium hydroxide, phenolphthalein being used as an indicator (1 cc.=0.0358 gm. of hippuric acid). To the amount of hippuric acid determined by weight, or titration, one adds the amount remaining dissolved in the urine. This can readily be calculated since 100 cubic centimeters of urine at room temperature will dissolve 0.33 grams of hippuric acid. Thus, for example, if the hourly specimen amounts to 70 cubic centimeters and the amount of hippuric obtained by weight is 1.1 gram, the total will be 1.1 plus (0.33 grams x 70/100 or 1.33 grams of hippuric acid). To express this result in terms of benzoic acid, one multiples by the factor 0.68. Therefore, 1.33 grams x 0.68 equals 0.91 grams of benzoic acid.

The normal adult will excrete about 3 grams of benzoic acid in the form of hippuric acid in four hours. Therefore, 3 grams have been taken as the normal value for calculating the efficiency of the liver. On this basis, the normal range is from 85 to 110 per cent. This provides for the variation due to the size of the individual patient.

The safety factors in biliary surgery are grouped around factors which determine a high liver-kidney reserve—younger patients, moderate weight, the absence of concurrent diseases, a reliable cardiovascular tree, all facilitate the smooth operative and convalescent course. Adequate vitamin K content, plasmoprotein, and glucose, are highly necessary and supportive.

The mortality rates for cholecystectomy have been studied in eight clinics with an immediate postoperative mortality of 1.3 per cent to 12 per cent.

Heyd collected 4,000 cases from 39 different surgeons with a postoperative mortality of 7.7 per cent.

Hever collected 36,623 cases with 6.6 per cent mortality.

When common duct stones were present the above figures were increased three times. When cholecystostomy only is performed, 50 per cent of these cases have to be reoperated upon and multiple operations increase mortality figures to 13.8 per cent. The incidence of stones is rather high. Crump, of Vienna, reported 1,000 postmortem examinations with 60 per cent of cholecystitis and 33 per cent stones. Mentzer, of the Mayo Clinic, reported 612 postmortem examinations with 60 per cent cholecystitis.

Heyd reported on 3,306 operative cases with 69 per cent stones.

Lahey has found stones in the common duct in 18.5 per cent and Walters in only 12.5 per cent.

It is reported by Heyd that stones in the common duct were found in 6.9 per cent of cases of chronic cholecystitis while 17 per cent were found in cases of acute cholecystitis and 80 per cent stones were found in the gallbladder in acute cholecystitis.

Mortality for cholecystectomy alone seems to have an average of 3.6 per cent but multiple operations increase this figure tremendously.

When is the safe time to operate for acute cholecystitis? There have been many good arguments advanced by both schools of thought but I believe the majority of surgeons are now doing cholecystectomy as early as the disease is recognized, being very sure the main object of the operation is effected, namely, the re-establishment of the biliary-intestinal continuity by the quickest method possible. In malignancy at the head of the pancreas, do cholecystostomy. In deep jaundice, attempt to reduce it: cholecystostomy at first and later remove the gallbladder. In acute inflammatory conditions with perforation and possible abscess, the risk is too great and liver reserve too low to attempt more than drainage.

Conservatism in surgery is the best part of valor and, when based on a scientific appraisal of the case in hand, there is no type of work where this statement is more true than in biliary tract disease.

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VITAMIN D THERAPY IN PSORIASIS

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Since my original report in 1936[1] on the treatment of psoriasis with massive doses of vitamin D, two papers have been published which bear out the rationale of this method. Cedar and Zon,[2] 1937, treating a series of arthritics with high vitamin dosage found favorable results in eleven of fifteen patients with psoriasis. Recurrences occurred in all but four. Brunsting,[3] 1938, testing the treatment found three cleared, seven improved, five slow, and two worse. In a letter to the author he states it is his opinion the treatment should be kept experimental for another year.

It is the purpose of the present paper to give the results secured during the past three years. As introductory, certain features bearing on etiology, frequency and means of treatment may well be considered. Bechet,[4] 1934, gave an historic account of the disease and its treatment. Schamberg,[5] 1924, reviewed the known and unknown about psoriasis. Siemens,[6] 1938, summarized the position of European physicians on the nature of the diesase and its treatment. Fantus and Cornbleet,[7] 1935, gave the methods employed in treatment at Cook County Hospital which is quite typical of all dermatologists, including a low fat diet, proteotherapy, the usual inunctions—salicylic acid, boric acid, ammoniated mercury, tar ointment, chrysarobin—and the drugs, arsenic, antimony, colchicine, potassium iodide; and irradiation.

To these methods may be added an unfavorable report by Gaul,[8] in 1937, in which the pustular form appeared after injection of fluoride. Schiff,[9] in 1935, claimed favorable results on a diet of raw vegetables, and cevatinic acid intravenously. Silver,[10] 1937, reported on intramuscular injection of hematoporphyrin followed by ultraviolet light. Lukashev,[11] 1936, tried diathermy, twenty treatments of 20 minutes' duration, with a prophylactic course three months later. Callaway,[12] 1937, reported on the inefficacy of siroil. Barr,[13] 1935, reported on a small series of cases treated by intravenous injection of manganese. Thurmond,[14] 1935, discussed the virtues of organic sulphur. One patient received eighty-seven injections (making a total of 1512 cc.) in fourteen months with improvement and recurrence.

Gaul,[15] 1936, reported on the occurrence of the pustular forms after the ingestion of liquid petroleum, and in another paper discussed the role of nickel as an exciting cause together with vitamin A deficiency. Gougerat and Degos,[16] 1936, treated by painting with ½ per cent methylene blue. Bahadur,[17] 1936, reported on a fluorescein and sunlight treatment. Gruenberg,[18] 1937, considered the hormone theory of etiology. And, lastly, there have been a few papers on the use of hypnosis in psoriasis: notably Wisch,[19] 1935. Of special interest is the treatment of one patient with psoriasis by Beatrice Kesten,[20] 1937, with crude cod liver oil, 120 cc. daily.

With Bechet we may still say that "psoriasis is an antidote for the dermatologist's ego."

As to the frequency of the disease, the general concept is that it makes up about 4 per cent of all skin lesions. Niles,[21] 1931, claimed an hereditary incidence to be about 23.8 per cent among private patients. In a letter from C. M. Griffith, medical director of the Veterans' Hospital Service, 1577 cases are reported. In Augusta, with a population of 60,000, twenty-two patients have shown up at the clinic giving an incidence of 0.036 per cent. This is comparatively low with the incidence in the North and is probably of considerable significance.

From the University of Georgia School of Medicine.

The author is indebted to the Nutrition Research Laboratories of Chicago, for their generous supply of a high unit vitamin preparation, ertron.

Correlated with the disease are such conditions as arthritis, (Boots,[22] 1936): seborrheic eczema (Cevatte,[23] 1924), onychia due to hypovitaminosis B_2 and D (White,[24] 1934) and psychopathic states (Bogen,[25] 1937).

Report of Cases

Case 1. (of the original report, Krafka, 1936), remained clear for one year. Gradual recurrence was carefully watched; generalized by August, 1937, when patient had an attack of malaria with high fever. On fever therapy theory is that clearing was expected, but was worse. Second round of high vitamin treatment instituted; skin cleared in 60 days. Present status: two small patches 0.5 cm. wide only evidence of disease.

Case 2. Recurrence after one year. Failed to respond to 100,000 units per day for 60 days. Condition arrested but not improved.

Case 3. Recurrence. Condition arrested but not improved under massive treatment. Seven hundred capsules (50,000 units each) from 11/3/37 to 3/11/38. No untoward symptoms.

New Cases

J. O. W., white male, aged 68. Generalized psoriasis during the memory of the patient. Severe eponychium. Psoriasis improved and eponychia cured under treatment with ertron, 100,000 units per day, for 60 days. Patient failed to return until he broke out with erysipelas. Treatment instituted but results questionable.

Mrs. A., white, aged 42. Markedly improved on 300 capsules ertron.

J. M., white male, salesman. Generalized psoriasis, with secondary infection about ankles. Four hundred capsules ertron. Writes from Louisiana that he is clearing up nicely; swelling from secondary infection gone. Able to walk.

G. A., white male, aged 19. Serpiginous form on face and body. Treated for a syphilitic dermatitis with neoarsphenamine. No response. Five hundred capsules ertron. Face cleared. Body improved. Present status: recurrence. Treatment reinstituted.

S. B. R., aged 49. One hundred capsules ertron. Some improvement.

Mrs. L. C. W., white, aged 52. Two patches on elbow. One hundred capsules ertron. Some improvement.

F. J., white male, aged 15. Small patches on body. Two hundred capsules ertron. Improved.

B. J., white female, aged 46. Psoriasis since youth. Came after measles and pneumonia. Only time clear was after fever with jaundice. Two hundred capsules ertron. Arrested; improved except on legs.

G. B. B., white male, aged 70. Extensive lesions and scaling. Uses mercuric ointment. One hundred capsules ertron. Some improvement when last heard from.

J. L., Sr., aged 72. Generalized psoriasis and secondary infection. Improved after 200 capsules of ertron.

J. L., Jr., aged 48. Severe psoriasis and secondary infection of face. No improvement after 200 capsules.

Mrs. G. P., white female, aged 45. Some improvement after 100 capsules.

L. M., white female, aged 16. Marked improvement after 300 capsules ertron.

Mrs. T., aged 70. Psoriasis and arthritis. Marked improvement of the psoriasis on 200 capsules ertron.

Mrs. B., aged 27. (Dr. Bernard). Has had autohematogenous injections and uses chrysarobin. Diffuse type. Two hundred capsules ertron. Improved.

S. McC., aged 21, white male. Psoriasis on chest for 6 months. Two hundred capsules, little improved.

Wm. N., colored male, aged 42. Generalized banded psoriasis of 16 years' duration. Also has tertiary syphilis. Three hundred capsules ertron. Neoarsphenamine injections. Improved.

In addition to the above twenty cases five are reported from the experience of former associates:

Dr. Thomas S. Griggs reports favorable results in a case of generalized psoriasis after using viosterol, 2 capsules five times per day from 10/23/36 to 1/7/37.

Dr. P. Head reports a trial on R. M., aged 38, with psoriasis of 15 years' duration. Cleared except for two small patches on 200 capsules ertron.

Dr. R. Bateman wrote concerning Mrs. C. L., aged 53, with a generalized psoriasis; skin cleared in 60 days on ertron.

Dr. John Oden, superintendent of the State Hospital at Milledgeville, reports that one of his nurses cleared up from a generalized psoriasis on 200 capsules of ertron.

Dr. F. W. Watson, Chipley, Fla., reports a case cleared under an initial routine of 12 capsules (of P. D. & Co. No. 198) per day for 10 days; 10 days rest and 10 days treatment.

Discussion

On the basis the present experience with the treatment of psoriasis by massive doses of vitamin D, it can be stated that a clinical trial should be made in every case of this disease. Research should be done in the larger clinics directed at the problem of the action of vitamin D in the skin and at the reason for failure, in some cases, to effect a cure. Recurrences, after cure, should be explained. The general feeling of those experienced in this mode of treatment is that vitamin D is the proper therapeutic agent. The problem of detail of the administration is still to be worked out.

With this in mind we may next consider the present concept of the action of vitamin D in the skin, as worked out by Presnell,[26] 1937. Oxygen consumption (Warburg method) by skin strips of rachitic rats is but 60 to 70 per cent of that from normal controls. McGowan.[27] 1933, was of the opinion that vitamin D sets free inorganic phosphate endogenously and possibly from a lipin compound. This would again in-

volve the metabolism of fat and make rational the fat-free diet in therapeutics.

But Hruszek,[28] 1935, found no difference in the lysis of cholesterol by psoriatic and normal serum and hence questions a lipidosis in psoriasis.

The whole problem may hinge on a question of absorption and storage. Windorfer,[29] 1938, claimed that 3.3 per cent of vitamin D ingested is stored in the kidney; 4 per cent in the brain. None is stored in the liver, stomach, and intestine. Heymann,[30] 1937, claimed absorption of vitamin D only in the presence of bile in the chyme. In dogs with obstruction of the common bile duct ingested vitamin D was detectable in the feces for only 10 days, while in normal dogs it persisted for 6 to 8 months.

Gelfan,[31] 1935, reported no action of vitamin D on the parathyroids, but it does act as a catalyzer or stimulant to the thyroid. It is not toxic to the renal cells unless they are already damaged and calcification does not occur unless other pathologic changes are present. This may explain the case report of Thatcher,[32] 1936, of calcification due to 10 drops cod liver oil three times daily in a baby 11 months old that showed a terminal pyelonephritis with staphylococci present.

In conclusion I may say that I am directing my work toward the solution of the action of vitamin D in the skin.

Summary of Treatment

1. Twenty-five patients with psoriasis have been treated over the past two years with massive doses of vitamin D, mainly administered in the form of ertron (50,000 units per capsule).

2. Five patients may be said to be completely cured since recurrence is negligible.

3. Fifteen patients showed some degree of improvement which was both satisfactory to the physician and the patient. Discontinuance of administration of vitamin D was followed by increased activity of the disease.

4. Three cases may be referred to as arrested, i.e., no marked improvement but no increase in severity and spread.

5. Two cases, thoroughly tested, failed to respond.

6. No untoward symptoms appeared throughout these tests, and no patient complained of any discomfort except a "slight fishy taste" for the first few days of treatment.

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The Ninety-Third Annual Session of the Medical Association of Georgia will be held at the Bon Air Hotel, Augusta, April 28-May 1, 1942.

TULAREMIC PNEUMONIA

Report of Case

W. G. Elliott, M.D.
Cuthbert

Tularemia is an infectious disease caused by the Bacterium tularense. The disease is primarily in nature a fatal bacteriemia of wild rodents, and secondarily it is a disease of man transmitted to him by bites of insects or by direct contamination.

This disease has been elucidated from beginning to end by American investigators. McCoy, in 1911, described a plague-like disease of rodents. McCoy and Chapin, in 1912, discovered the causative organism and named it Bacterium tularense for Tulare County, California, because most of the infected ground squirrels came from Tulare County. Francis, in 1919, found that the disease in man was caused by the same organism.

Forty-five states and the District of Columbia have reported cases of tularemia. Japan, Russia, Norway, Canada and Sweden have also reported cases.

The disease is transmitted in animals by blood-sucking insects, such as lice, flies, ticks and perhaps fleas. The human source of the disease is from dressing wild rabbits (direct contamination) or from insect bites, particularly ticks.

Symptoms: Six clinical types have been described:

1. Ulceroglandular
2. Oculoglandular
3. Glandular
4. Typhoid-like
5. Ingestion
6. Pneumonic

Perhaps a better classification is that of Reiman, as follows:

1. Glandular (Bubonic)
2. Septicemic (Typhoid)
3. Pneumonic

The onset is usually sudden with chills, fever and pain over the entire body. This usually occurs from two to ten days after exposure. The average incubation period is about three and one-half days. The fever is usually of the septic type and lasts for several weeks, and convalescence is usually slow.

The mortality rate is about 4 to 5 per cent, and a large percentage of the deaths occur in the pneumonic type.

The final diagnosis, as practiced today, has to be made by agglutination tests. This does not become positive until the second week or even later. An intradermal test has been devised that is positive early in the disease. One attack of tularemia confers immunity.

Treatment is as follows:

1. Symptomatic and palliative.
2. Metaphen 1:1000 solution intravenously, 10 cc., every other day.
3. Sulfanilamide.
4. Sulfathiazole (recent reports).
5. Antitularemic serum.

Case Report

J. K. W., aged 22, single, was admitted to the hospital April 28, 1940, with chief complaint of fever of about two weeks' duration.

Illness began about two weeks previously with pain in left chest in region of his heart and soon afterward he had a chill and fever. He went to a physician who treated him for malaria. The pain in his chest was soon relieved but he continued to have fever, sweats, etc., and gradually got weaker. He had lost weight and had been unable to take very much nourishment. He had a dry cough but was unable to raise any sputum. After giving him atabrine, quinine, and symptomatic treatment for about two weeks and there being no improvement, his physician referred him to the hospital for x-ray of the chest and diagnosis.

Patient had had malarial attacks for the past two to three years, but his past history was otherwise negative, as was his family history.

Examination: Patient was a rather thin white male about 22 years old.

Head: negative; eyes: negative; mouth: tongue coated; nose and ears: negative: neck: no glandular enlargement; throat: negative.

Chest: Expansion perhaps slightly limited on left side. Respiration about 30 per minute. No impairment to percussion. Breath sounds were distant over left lung. No tubular breathing. A few rales were heard in left axillary region.

Heart: Rate rapid but regular. No murmurs. No enlargement.

Blood Pressure: 110/60.

Abdomen: No distension. Spleen and liver not palpable. No tenderness.

Genitalia: Negative.

Lymphatics: No enlargement.

Reflexes: Physiologic.

X-ray of Chest: Consolidation of middle portion of left lung. Apex clear and hase clear.

Laboratory Examination:

1. Urine—Normal.
2. White blood count: 9,650. Differential: polymorphonuclear neutrophiles, 86; lymphocytes, 14.
3. Hemoglobin estimation, Sahli, 95 per cent.
4. Kahn: negative.
5. Sputum negative for tubercle bacilli; unable to type for pneumococci.
6. Blood collected for agglutination tests for typhoid, typhus, undulant fever and tularemia April 28, and sent to State Board of Health Laboratory.

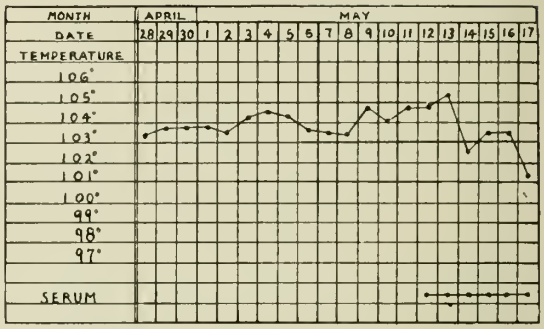
Treatment and Progress: Because of the above findings a diagnosis of pneumonia was made and he was given sulfapyridine by mouth, 2 grams every 4 hours for 2 doses, then 1 gram every 4 hours. With each dose of sulfapyridine he was given elix-phenobarbital and sodium citrate. He became nauseated after about 24 hours' treatment and was given saline and glucose intravenously. Oxygen was also started through a nasal catheter and was given continuously. He continued to be nauseated and his fever continued to run high so that on May 1 the sulfapyridine was omitted by mouth and he was given 2.5 grams of sodium sulfapyridine monohydrate intravenously twice daily, and once on May 2. With the improvement of his nausea he was given 0.5 gram sulfapyridine by mouth. His nausea started again and he showed signs of saturation with the drug, so on May 3 the drug was omitted entirely. We received a report from the State Board of Health on May 2 which said the patient's blood was strongly positive for tularemia.

The treatment for the next few days was mostly symptomatic. Citrated blood transfusions of 500 cc. were given on May 6, 8, and 11. Metaphen 1:1000, 10 cc. intravenously, was given May 7, 9, and 11. His urine contained some albumen and it was thought best not to give any more of the metaphen.

His condition gradually grew worse. He appeared to get sicker every day. He developed signs of avitaminosis, and his heart action became weaker and more rapid. He was given nicotinic acid, thiamin chloride and riboflavin; also digitalis and coramine. The oxygen was given continuously and glucose and saline was given intravenously every day.

On May 12 7.5 cc. of Sharpe & Dohme Lyovac Antitularemic serum was given intravenously. This was repeated May 13, 14, 15, 16 and 17. His general condition seemed much better after the first dose although his fever remained high until after the third dose, when it gradually came down. After the sixth dose he looked like a different person and after May 17 his fever varied from 97.2 to 100.8, but most of the time it was below 100 F. His pulse slowed and his condition was so much improved that the oxygen was discontinued May 17, the digitalis on the eighteenth, and the coramine on the nineteenth. His appetite improved rapidly and his strength was soon gained. He was dismissed from the hospital June 2 in good condition. He has returned several times for observation and seems to be in good health. He has been driving a school bus daily since early September, 1940.

His left lung did not clear up completely for several weeks. There was some evidence of trouble when his chest was viewed by the fluoroscope, for five to six



After May 17 his temperature ranged from 97 to 100, but most of the time it was below 100 F.

weeks after dismissal, but it eventually cleared entirely. This did not give him any trouble after leaving the hospital.

I believe that this patient would have died if serum had not been used.

This case shows us that we should think of tularemia as a possibility in unusual types of pneumonia.

Day	Leukocyte Count	Hemoglobin Estimation
April 28	9,650	95%
April 29	9,000	
May 1	9,250	
May 2	8,800	85%
May 3	8,200	85%
May 4	7,750	80%
May 6		75% (Transfusion)
May 7	7,200	77%
May 8		65% (Transfusion)
May 9	6,800	73%
May 10	6,000	73%
May 11		65% (Transfusion)
May 12	6,300	80%
May 13		73%
May 14	5,800	70%
May 15	5,700	70%
May 16	5,050	70%
May 17	5,100	70%
May 18	5,750	70%
May 20	5,500	73%
May 22	6,000	75%

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THE PRESIDENT'S PAGE

SCARCITY OF RURAL DOCTORS

As a means of combating the increasing shortage of doctors in the rural communities and small cities of Georgia, steps are being taken in many of the counties of the State to establish hospitals. Greene County is an excellent example.

Around 1,200 citizens and taxpayers of that county have approved the plan of using $15,000 of State Highway certificates now in possession of the board of county commissioners to assist in erecting the building. It is not proposed for the county to operate the hospital but to lease it to a non-profit corporation, to be composed of Greene County citizens.

"Twenty-five years ago Greensboro had five doctors, the neighboring community of Macedonia, one; Penfield two and Siloam, two. Today, Greensboro has two, Macedonia and Penfield have none and Siloam has one," the editor of the Greensboro Herald-Journal pointed out in deploring the scarcity of doctors. "Unless a hospital is erected in this county, it is going to be a hard matter to replace the present doctors when they retire from practice."

The same conditions prevail in Barrow County. The number of doctors practicing today in Barrow County is only a small percentage of those here even one year ago.

We cannot expect highly trained young physicians to return to our rural districts and become enthusiastic over some of the conditions existing there: lack of hospital facilities and medical supplies and equipment; the lack of economic security and the lack of adequate help from many sources.

They are human beings and most of them desire to live and work in communities where there are opportunities for advancement. The existing conditions of valiant physicians, who are forced to go night and day to ease the suffering and fight disease frequently without even a "thanks" for their efforts is a poor incentive to a young man with high hopes.

—The Winder News, reprinted in The Atlanta Constitution, August 29, 1941.

Rural communities and small cities all over Georgia are rapidly awakening to their responsibility in the furnishing of medical care to their people. The unequal distribution of doctors in Georgia is purely an economic problem. When the citizens and local governmental agencies band together to offer the physical facilities, the doctors then can give medical care to all the people. As is being done in Greene County all these hospitals should be owned by non-profit organizations or the local government.

* * * *

Being at a meeting of the Committee on Constitution and By-Laws of the U. S. P. at Detroit and hence unable to attend the Tenth District Meeting we are indebted to Doctor Redfearn for the following report:

* * * *

The Tenth District meeting in Hartwell was a most helpful and enjoyable affair. The first paper, "Management of Nephrolithiasis," was presented by Dr. Mordecai Nachman, an invited guest from Greenville, South Carolina. He stressed the importance of finding the chemical composition of stones and the help derived from proper diet in preventing stone formation. A plea for the bedridden patient was made urging early upright positions as soon as possible to prevent the formation of certain kidney stones.

The second paper, "Barbiturates in General Practice," by Dr. Perry P. Volpitto of Augusta explained the long acting, the short acting and cumulative effects of these drugs used all the way from mild sedative effect to general anesthesia. Every doctor in Georgia should read this paper when it appears in the University of Georgia School of Medicine Bulletin.

Dr. E. R. Watson of the State Board of Health gave a practical discussion of the care of the premature infant and demonstrated an inexpensive incubator that may be secured from the Department of Public Health for use in any county. His plan plus the use of the incubator will save the lives in their homes of many prematures who otherwise would not live.

Dr. T. C. Davison outlined the proper plan of examining breast tumors by pressing the breast against the chest wall to feel masses rather than pulling and squeezing it.

Dr. D. Henry Poer discussed the hospital needs in the Tenth District. He and his committee have been most diligent in explaining the hospital needs in the various districts in Georgia. Doubtless this educational work will prove of great benefit to the citizens of our State.

ALLEN H. BUNCE, M.D.

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MAN'S MOST COMMONLY NEGLECTED SYMPTOM

If asked what is the most commonly neglected symptom of male patients, undoubtedly the answer should be the failure to recognize the significance of a weak urinary stream. Why should a man with fairly good sense, especially concerning plumbing around his house, fail to heed the significance of a symptom so easily recognized, and one which is so likely to be followed by serious consequences? The answer to this question is that he usually attributes it to his age. He thinks, and perhaps naturally, that a weak stream is due to a weak bladder muscle. This view is, of course, incorrect because the reason for the weak stream nearly always is a definite vesical neck obstruction, due either to enlargement of the prostate gland, to a fibrous contraction, to a valve-like formation or to an urethral stricture which hinders the flow of urine.

It is well known that an important part of the kidney function is carried on in a filtration-like manner. We know that a filter will not work well when the tube leading away from it is partly obstructed. Unfortunately, patients with vesical neck obstructions do not at first have pain or other symptoms which would direct attention to the beginning of trouble. Unfortunately, too, urinalysis affords little assistance. By this we mean that the urine may remain negative for a considerable time after the obstruction has become fairly definite with perhaps considerable renal damage and residual urine.

Frequency in voiding is often regarded as due to nervousness, habit formation, unusual intake of fluids, et cetera. And so, for a considerable time, the elderly man is likely to look with complacency upon a symptom which is distinctly significant of trouble ahead.

Formerly when an open cutting operation, which was not without hazards, was the only procedure possible to overcome vesical neck obstruction, it was not important to recognize enlargement of the prostate in its early stages. The advent of transurethral resection now has changed the criteria for seeking relief from obstructive lesions. There is practically nothing which makes a man grow old faster than urinary obstruction. Since, therefore, relief may be obtained, if sought reasonably early, without much danger and with a comparatively short stay in the hospital, there is no valid reason for postponing a transurethral resection until the patient's health is seriously impaired.

When properly done the great majority of vesical neck obstructions may be relieved transurethrally, and as permanently as by the more dangerous prostatectomy. A weak urinary stream after a transurethral operation means that the resection was not adequate. This may be shown easily by a cystourethroscopic examination and may be corrected by the proper removal of the remaining obstructing tissue.

We talk much of preventive medicine and its advantages which, of course, is laudable. There are few things, however, done in preventive medicine which could reduce morbidity more than to relieve vesical neck obstructions before serious or irreparable damage has occurred.

EDGAR G. BALLENGER, M.D.

COMMON SENSE IN THE USE OF VITAMINS

During the past few years knowledge of the vitamins has progressed with such rapidity that it is difficult to keep abreast. Also the advance has been so well publicized that some lay people may be led to believe that vitamins cure all symptoms. Unfortunately, no harm comes from overdosage and this fact has led grocery and general stores into a business which borders on a racket.

When a patient inquires how people stayed healthy before vitamins were discovered, the fact is readily brought out that a good normal diet always has and probably

always will supply sufficient vitamins for the normal individual. There are times when the body demands additional vitamins and there are other times when, because of dietary restriction, the addition of extra vitamins is necessary. Instances are pregnancy, infancy and long duration infections. In the treatment of peptic ulcer and some other gastro-intestinal diseases, the diet is not well-balanced in vitamins and supplement is needed, particularly in vitamin C and B complex. Of course, everyone else does not necessarily have an adequate intake of vitamins, but they could have. A dietary history will help determine whether they have or not.

There is no reason to give the various uses of the vitamins, but where symptoms of specific deficiency exist results with treatment are dramatic. However, as has been stressed by all students of vitamin metabolism, usually there is a multiple deficiency. If riboflavin deficiency is suggested by mouth, tongue and eye changes, not only should riboflavin be given for treatment but the whole of the vitamin B complex and probably also vitamins A and D. Nicotinic acid will clear many of the symptoms of pellagra dramatically, but treatment should not be limited to this major factor.

Although in recent months many clinical uses of vitamin B_6 have been suggested, there is as yet lack of definite proof as to its curative value in any given condition. Vitamin E, when withheld in rats, causes sterility and a disturbance in the sexual cycle, but its value in the treatment of sterility in humans has not been proven. The same is true of its use in habitual abortion. It can be tried in both conditions, but results must be analyzed critically and treatment should not be continued *ad absurdum*. The same seems to be true of its use in amyotrophic lateral sclerosis. Wilder states that there is no direct evidence that vitamin E is associated with human metabolism.

Vitamin K causes an elevation in the prothrombin level in the blood and thus plays a part in the clotting mechanism. In this respect it has proven of great value in intracranial hemorrhage of newborn infants, and in surgery. The absorption of vitamin K from the gastro-intestinal tract depends on the presence of bile salts, and in some cases these must be added to secure results, when it is given orally.

No recent achievements in medical research have been more far-reaching and helpful than those in the field of vitamins. The clinician must, however, interpret these findings with care and not expect to find vitamins a cureall. It is still important to diagnose vitamin deficiency before treating with vitamins. A neuritis due to nerve root pressure cannot be expected to respond to thiamin as would a neuritis developing in a chronic alcoholic. An arthritic, under proper nutrition, will probably respond as rapidly to treatment as will one getting 500,000 units a day of vitamin D. The moral is *Use vitamins, but season them with common sense.*

T. Sterling Claiborne, M.D.

PLAGUE INFECTION

Evidence that plague infection among wild rodents of western United States is spreading eastward prompted Surgeon General Thomas Parran of the United States Public Health Service to call a plague control conference August 28-29 at Salt Lake City, Utah.

The conference was attended by health officers from California, Oregon, Washington, Nevada, Montana, Idaho, Wyoming, Utah, Colorado, Arizona, New Mexico and North Dakota. Infection among wild rodents has progressed steadily during the past five years from the Pacific Coast eastward as far as the Dakotas. The purpose of the conference was stimulation of rat control programs in urban and rural areas.

Unless prompt and effective control measures are undertaken plague infection among rodents may spread to the more populous areas of the Middle West and East creating a serious hazard to humans.

Surveys conducted by the Public Health Service in 1935 revealed plague infection among wild rodents in Montana, California and Oregon. In each succeeding year, including 1941, infection has been demonstrated in ground squirrels, chipmunks, rats, marmots, and other wild rodents in Arizona, California, Idaho, Montana, Nevada, New Mexico, Utah, Washington and Wyoming.

Infection among rodents has been discovered recently as far east as North Dakota.

The first outbreak of human plague in this country occurred in 1900 in San Francisco. Plague in California reached epidemic proportions in 1907-08. Since 1900 there have been 502 cases and 315 deaths in this country. Two human cases of plague, both in California, have been reported this year.

WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.
President-Elect—Mrs. J. Lon King, 223 Buford Place, Macon.
First Vice-President—Mrs. W. A. Selman, 760 Penn Avenue, N. E., Atlanta.
Second Vice-President—Mrs. Fred Rawlings, Sandersville.
Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.
Third Vice-President—Mrs. J. R. McMichael, Quitman.
Recording Secretary—Mrs. J. C. Metts, 303 Anderson Ave., Savannah.
Parliamentarian—Mrs. J. E. Penland, Waycross.
Treasurer—Mrs. Bruce Schaefer, Toccoa.
Corresponding Secretary—Mrs. Charles Usher, 6 East Liberty Street, Savannah.
Historian—Mrs. Ralph Freeman, Hoschton.

1941 — OUR OBJECTIVES — 1942
THEME

To aid in National Defense by a well rounded Auxiliary Program of Service.

FOR MEMBERS:

1. To know the aims and objectives of the Medical Auxiliary and its methods of Organization. To know the names of local County Advisors and the Chairman of the State Advisory Committee and the names of County, District and State Auxiliary officers and chairmen.
2. To attend Auxiliary Meetings regularly and pay dues promptly. Endeavor to interest all eligible doctor's wives in becoming Auxiliary members.
3. Accept chairmanships of Health and Public Welfare in other Organizations.
4. Present the Health Education Program outlined for us by the Medical Association of Georgia to lay organizations, the Medical Societies appointing the speakers, the Auxiliary supplying approved educational material. Special emphasis is being placed again this year on nutrition in our health education work and on visual education as an aid in health education. Inform ourselves and laymen regarding approved radio health programs.
5. Be informed on current legislation sponsored or endorsed by the Medical Association of Georgia and acquaint others with its importance. Register and vote. Know the platform of the American Medical Association.
6. Read each month the Auxiliary pages of the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA; the Auxiliary page in the *Atlanta Constitution* the first Sunday of each month, and send articles for both to the State Press and Publicity Chairman. Send Auxiliary news items to County, District and State Scrapbook Chairmen.
7. Endeavor to increase subscriptions to *Hygeia*, the only health magazine published by the American Medical Association and also to the National Auxiliary Bulletin.
8. Assist in the entertainment of County, District, and State Meetings and promote unity and a growth in fellowship at all times.

FOR PRESIDENTS:

1. Each County President and District Manager, upon assuming the duties of office, should immediately secure an Advisory Committee or Councilor from her County or District Medical Society and be guided in all Auxiliary activities by them.
2. District Managers on taking office should appoint such committees, corresponding to the State, Southern and National Auxiliaries as are necessary to successfully conduct district work. However, they should remember that the district is primarily a unit for organization and counsel and that the chief duty of the District Manager is to organize and strengthen Auxiliaries in her district and plan suitable programs for District Meetings.
3. County Presidents on taking office should appoint Chairmen, when possible, corresponding to the State, Southern and National Auxiliaries, and send a list of Officers and Chairmen, together with their term of service, to the State President.

   1. Organization
   2. Health Education
   3. Public Relations
   4. Press and Publicity
   5. Legislation
   6. Hygeia
   7. Scrapbook
   8. Health Films
   9. Doctor's Day
   10. Research in Romance of Medicine
   11. Historian
   12. Student Loan Fund
   13. Jane Todd Crawford Memorial
   14. Archives
   15. Exhibits

   Auxiliaries with a necessarily small membership should not be discouraged because of impossibility of having all Committees but should endeavor to promote the main objectives of Auxiliary work.
4. County Presidents and District Managers are urged to make necessary revisions in Constitution and By-Laws and send new or corrected copies of same to the State President-Elect. It would greatly simplify the work of the State Auxiliary if County Auxiliaries would have their term of office to run concurrently with the State Auxiliary, electing officers in April to assume their duties after the State Convention and having a provision in By-Laws providing that State and National portion of dues (75 cents per member) must be sent to the State Treasurer before March 15th.
5. County Presidents and District Managers should make every effort to represent their Auxiliaries at the State Convention. County Presidents should also be sure to have two accredited delegates at Convention from each Auxiliary. Presidents should send in reports on time and be ready to give reports at Convention if called for.
6. Arrange a suitable and interesting program featuring some phase of health education for each Auxiliary Meeting. If you desire speakers, consult your advisors. Have a Public Relations program for lay

organizations or groups presenting a health education program, arranged in cooperation with your advisors.

7. Observe "Doctor's Day" March 30th, in some fitting manner, honoring the physicians who have given and are giving their services to humanity in Georgia.
8. Contribute to the Student Loan Fund and to the Health Film Library.
9. See that the year's history of your Auxiliary is written and sent to the State Historian. Encourage Research in Romance of Medicine. Copies of all important Auxiliary papers should be sent to Chairman of Archives.
10. State Chairmen will send their recommendations to you. Please read carefully then give to your corresponding county chairmen and help them with their plans and work.

This year we are deeply indebted to the Medical Association of Georgia for the gift of Moving Picture machines for each district in the state. Let us show our appreciation by a wide use of these machines and films in furthering our program of Health Education and Public Relations.

Mrs. Lee Howard, President.

PRE-CONVENTION MEETING
MAY 13, 1941

The Executive Board of the Woman's Auxiliary to the Medical Association of Georgia met May 13, at Hotel Dempsey, Macon.

The President, Mrs. H. G. Banister, presided.

The Lord's Prayer was repeated in unison.

Minutes of the 1940 Post-Convention meeting were read and approved.

Mrs. G. L. Loden reported no changes are to be made in plan for chairmen of Exhibit and Scrapbook Committees.

Minutes of meeting of Executive Board with the Advisory Committee were read and approved.

Mrs. L. W. Williams, Chairman of the Student Loan Fund Committee, reported that in the future notice for collection of loans will be in the hands of the Secretary to the Medical Association of Georgia.

Mrs. Banister stated that it has been decided that it is unwise for the Auxiliary to sponsor the writing of health plays at present.

Rules on naming nominating committee were read by Mrs. Lee Howard. The Nominating Committee was elected as follows:

From Executive Board: Mrs. Eustace Allen, Atlanta; Mrs. Ralph Chaney, Augusta; Mrs. C. W. Roberts, Atlanta.

From Membership-at-Large: Mrs. John I. Hall, Macon; Mrs. W. F. Reavis, Waycross; Mrs. J. C. Patterson, Cuthbert; Mrs. C. H. Richardson, Macon.

The Recording Secretary, Mrs. Loren Gary, Jr., Shellman, was appointed to report the meeting to the delegates.

Special committees were named as follows:

Auditing: Mesdames O. H. Matthews, Atlanta; Ralph Freeman, Sr., Hoschton; D. C. Kelley, Lawrenceville.

Courtesy: Mesdames H. M. Kandel, Savannah; L. N. Todd, Augusta; G. L. Loden, Colbert.

Resolutions: Mesdames J. N. Brawner, Atlanta; J. Harry Rogers, Atlanta; J. C. Metts, Savannah.

Awards (visual report): Mesdames J. P. Holmes, Macon; J. R. McMichael, Quitman; H. M. Kandel, Savannah.

Mrs. J. Harry Rogers moved (Mrs. J. R. McMichael amended) that at pre-convention meeting award chairmen will announce winners of last year's awards. Motion carried.

It was recommended that county organizations study during the coming year the matter of paying $1.00 National dues (this amount will also pay for subscription to Bulletin) and instruct delegates as to how to vote on the question at 1942 meeting of Executive Board and delegates.

Mrs. Eustace Allen announced 1940 winners of awards as follows:

Brawner — Ware County (Mrs. Leo Smith, President). Honorable mention—Baldwin and Randolph counties.

Bonar White — Scrapbook — Baldwin County (Mrs. C. H. Richardson, President). Exhibit—Fulton County.

Adjourned to hear President's report to Medical Association of Georgia.

Mrs. H. G. Banister, President.
Mrs. Loren Gary, Jr., Secretary.

SEVENTEENTH SESSION
First Session
May 14, 1941

The seventeenth annual session of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the President, Mrs. H. G. Banister, at the Dempsey Hotel, Macon, May 14, 1941.

The invocation was offered by Dr. S. T. Senter, pastor of Vineville Methodist Church.

Welcome to the guests was expressed by Mrs. J. P. Holmes, President of the hostess Auxiliary. Mrs. Murdock Equen of Atlanta responded.

The following distinguished guests were introduced by Mrs. C. C. Harrold:

Past-Presidents Mesdames J. N. Brawner, C. W. Roberts, J. E. Penland, W. R. Dancy, Ralph Chaney and Eustace Allen, who is also Third Vice-President of the National Auxiliary.

Mrs. J. C. Patterson, wife of the President of the Medical Association of Georgia.

Mrs. Allen Bunce, wife of the President-Elect of the Medical Association of Georgia.

Mrs. Lee Howard, President-Elect of the Woman's Auxiliary to the Medical Association of Georgia.

Mrs. J. N. Brawner made motion to send to Mrs. F. M. Barfield and Mrs. M. L. Compton

telegrams of sympathy for bereavements, and to Mrs. Bonar White. Dr. and Mrs. W. H. Myers and Mrs. M. T. Benson telegrams stating regret for their illnesses and absence from convention. Motion carried. Secretary instructed to send messages.

Mrs. Olin Cofer made motion to send telegram of congratulation on being named outstanding woman of Georgia for her work with Women's Field Army for Control of Cancer to Mrs. H. B. Ritchie. Motion carried. Secretary instructed to send messages.

Mrs. Eustace Allen, Third Vice-President of the Woman's Auxiliary to the American Medical Association. gave a paper "Observations on Organization."

Mrs. W. W. Chrisman reported the hostess Auxiliary's plans for entertaining the guests.

The page for the morning, Mrs. Max Mass, was presented by Mrs. J. P. Holmes.

The Parliamentarian. Mrs. J. E. Penland. read rules governing convention procedure.

Timekeepers appointed were: Mesdames C. C. Harrold, Carl Anderson and O. R. Thompson.

Dr. J. C. Patterson. President of the Medical Association of Georgia, gave an inspiring message "The Role of the Auxiliary."

Reports were heard from the following districts and counties:

First District—Mrs. W. E. Simmons.
Second District—Mrs. J. A. Redfearn.
Third District—Mrs. C. P. Savage.
Fifth District—Mrs. J. Harry Rogers.
Sixth District—Mrs. Y. H. Yarbrough.
Ninth District—Mrs. C. J. Roper.
Tenth District—Mrs. G. L. Loden.
Baldwin County—Mrs. C. H. Richardson.
Bibb County—Mrs. J. P. Holmes.
Chatham County—Mrs. J. C. Metts.
Clarke County—Mrs. L. S. Patton.
Fulton County—Mrs. Olin Cofer.
Gwinnett County—Mrs. D. C. Kelley.
Jackson County—Mrs. Ralph Freeman, Sr.
Randolph County—Mrs. Loren Gary, Jr.
Richmond County—Mrs. L. N. Todd.
Stephens County—Mrs. C. L. Ayers.
Ware County—Mrs. W. F. Reavis.
Washington County—Mrs. J. B. Dillard.

Mrs. W. B. Schaefer made motion that copies of reports be given to the Historian for her records. Motion carried.

Report of pre-convention meeting of Executive Committee was given by the Secretary. Report was corrected and accepted.

Special committees were appointed as follows:

Nominating Committee: Mesdames Eustace Allen. Ralph Chaney, C. W. Roberts, John I. Hall, W. F. Reavis, J. C. Patterson, C. H. Richardson.

Auditing Committee: Mesdames O. H. Matthews, Ralph Freeman, Sr., D. C. Kelley.

Courtesy Committee: Mesdames H. M. Kandel. L. N. Todd. G. L. Loden.

Resolutions Committee: Mesdames J. N. Brawner, J. Harry Rogers, J. C. Metts.

Committee on Award for Visual Report: Mesdames J. P. Holmes, J. R. McMichael, H. M. Kandel.

Mrs. Charles J. Woods. Chairman Credentials Committee. reported 106 registered.

Minutes of the Sixteenth Session were read, corrected and approved.

Mrs. Ralph Chaney moved that the matter of those who are in arrears in dues be referred to Mrs. Eustace Allen for conference with National officials. Motion carried.

Mrs. Lee Howard urged county Auxiliaries to observe By-Laws on date for payment of dues.

Mrs. J. N. Brawner moved inauguration of President's Dinner at time of Doctors' Alumni banquets. participants to include current state officers, Past Presidents, District Managers and County Presidents. Motion carried. Mrs. C. W. Roberts stated the first President's Dinner would be held in Dempsey Hotel. May 14. 1941.

Adjourned.

MRS. H. G. BANISTER, President.
MRS. LOREN GARY, JR., Secretary.

SECOND SESSION, MAY 15, 1941

The Second Annual meeting of the Seventeenth Session of the Woman's Auxiliary to the Medical Association of Georgia was called to order May 15, 1941, by the President, Mrs. H. G. Banister.

The invocation was led by Dr. A. G. Harris of the First Presbyterian Church.

The address of welcome was made by Mrs. W. W. Chrisman. President-Elect of the hostess organization, and Mrs. Leo Smith of Waycross, responded.

Mrs. Robert McAllister introduced the page, Mrs. Devereaux Jarrar.

Mrs. R. E. Mosman, President-Elect of the Woman's Auxiliary to the American Medical Association, was unable to fill her appointment because of illness.

Mrs. J. N. Brawner was apopinted Parliamentarian for the morning session.

Minutes of the First Session were read. corrected and approved.

Dr. J. N. Brawner gave the report of the Advisory Committee and introduced Dr. Allen Bunce, President-Elect of the Medical Association of Georgia, who spoke on "The Education and Remuneration of the Physician." Dr. Bunce requested the Auxiliary's help in passing an amendment to the State Constitution to provide for the permission to contract for hospital care of their indigent by cities, counties, communities.

Mrs. W. B. Schaefer gave the Treasurer's report.

Mrs. W. W. Chrisman was in the chair while

Mrs. Banister gave her report of the year's work. On motion of Mrs. J. N. Brawner the report was accepted with a rising vote of thanks.

Next on the program was a beautiful service arranged by Mrs. A. J. Mooney in memory of Mesdames T. M. Hall, O. B. Bush, Charles E. Boynton.

Mrs. W. B. Schaefer moved that, if the doctors place projectors in the various districts, the Auxiliary present to Medical Association check for amount of Health Film Fund ($124.75). Motion carried 24 to 14.

Reports from officers were given as follows:

President-Elect—Mrs. Lee Howard.

First Vice-President, Chairman of Health Education—Mrs. W. W. Chrisman.

Second Vice-President, Chairman of Hygeia—Mrs. Fred Rawlings.

Third Vice-President, Chairman of Scrapbook—Mrs. Lloyd Wood, read by Mrs. C. L. Ayers.

Recording Secretary—Mrs. Loren Gary, Jr.

Historian—Mrs. W. A. Selman.

Report of meeting of Woman's Auxiliary to American Medical Association was made by Mrs. Olin Cofer.

Report of meeting of Woman's Auxiliary to Southern Medical Association was made by Mrs. W. G. Elliott.

The Auditing Committee (Mrs. O. H. Matthews) reported the Treasurer's books examined and found beautiful and perfect in every detail. Report accepted.

The Resolutions Committee (Mrs. J. N. Brawner) reported no resolutions offered for consideration.

Mrs. J. N. Brawner moved to rescind the words "current officers, Past Presidents. County Presidents and District Managers" in first day's session action on Presidents' Dinner and to make it a dinner honoring the State President with any Auxiliary member paying the price attending. Motion carried.

Standing committees reported as follows:

Public Relations—Mrs. H. M. Kandel.

Press and Publicity—Mrs. J. Harry Rogers.

Health Films—Mrs. G. L. Loden.

Research in Romance of Medicine—Mrs. C. M. Burpee.

Student Loan Fund—Mrs. L. W. Williams.

Jane Todd Crowford Memorial—Mrs. W. M. Cason.

Revisions—Mrs. Ralph Chaney.

Exhibits—Mrs. J. P. Holmes.

Memorials—Mrs. A. J. Mooney.

Mrs. James N. Brawner Trophy—Mrs. Eustace Allen.

Awards were made as follows:

Bonar White Exhibit (by Mrs. J. R. McMichael)—Chatham County, Mrs. J. C. Metts, President.

Scrapbook—Fulton County, Mrs. Olin Cofer, President.

Brawner Trophy (by Mrs. Eustace Allen)—Baldwin County, Mrs. Charles Richardson, President. Honorable mention — Richmond County, Fulton County.

President's Award for Visual Report (by Mrs. J. P. Holmes)—Richmond County, Mrs. L. N. Todd, President.

The Credentials Committee (Mrs. Charles Wood) reported total registration 135.

Mrs. H. M. Kandel made report for Courtesy Committee.

Mrs. Eustace Allen reported for the Nominating Committee. The following names were submitted:

President—Mrs. Lee Howard.

President-Elect—Mrs. J. L. King.

First Vice-President—Mrs. W. A. Selman.

Second Vice-President—Mrs. Fred Rawlings.

Third Vice-President—Mrs. J. R. McMichael.

Recording Secretary—Mrs. Loren Gary, Jr.

Treasurer—Mrs. W. B. Schaefer.

Historian—Mrs. Ralph Freeman, Sr.

The Secretary cast the ballot and the officers were installed by Mrs. Banister.

Committee to approve minutes of the day: Mesdames J. R. McMichael, W. R. Dancy, W. M. Cason.

In the absence of Mrs. Yampolsky, Mrs. C. W. Roberts presented Past-President's pin to Mrs. Banister.

Mrs. Lee Howard announced Corresponding Secretary Mrs. Charles Usher of Savannah.

Mrs. Howard called Post-Convention meeting of the Executive Board immediately after adjournment.

Adjourned.

Mrs. H. G. Banister, President.
Mrs. Loren Gary, Jr., Secretary.

Minutes read and approved May 15, 1941.

POST-CONVENTION
May 15, 1941

The Post-Convention meeting of the Executive Board of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the newly installed President, Mrs. Lee Howard, at Hotel Dempsey, Macon, May 15.

After a moment of silent prayer the President named chairmen of standing committees for the year as follows:

Public Relations—Mrs. H. M. Kandel, Savannah.

Legislation—Mrs. C. C. Harrold, Macon.

Press and Publicity—Mrs. J. Harry Rogers, Atlanta.

Health Films—Mrs. Leo Smith, Waycross.

Doctors' Day—Mrs. Y. H. Yarbrough, Milledgeville.

(Continued on Page 414)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE DOCTOR AND MIDWIFERY

Much of midwifery remains the doctor's responsibility. He is called upon to manage abnormalities and to give the patients of midwives such prenatal care as they receive. The doctor has, therefore, an obvious interest in midwifery. He would like to see midwifery developed to the maximum standards of safety, but he must also protect his own time and interests.

It is altogether too common a fact that midwives waste a great deal of the doctor's time. It is annoying to be called unnecessarily, but even more exasperating and time consuming is the responsibility which he assumes when called to attend a neglected and mismanaged midwife case.

A fuller understanding of midwives will help any doctor to better his local situation. A knowledge of what the midwives have been taught, what they can be depended upon to do well, and what procedures are beyond their capabilities is important to those doctors who are accepting the trying responsibilities of helping them with their practice.

It is the purpose here to present briefly some general facts about midwifery, with special reference to information which might be of value to the practitioner.

Economic Necessity

In Georgia, lay midwives are recognized to be a necessity. Though they are known to have definite inadequacies in both obstetric knowledge and skill, the economic situation requires that they be permitted to attend a high percentage of confinements. Despite the facts that they are usually illiterate, superstitious and, in recent years, their ranks have been thinned by death and retirement, midwives last year attended 24,063 women, 3,940 of whom were white.

The scarcity of doctors in rural areas and the non-existence of hospital facilities within the means of indigent patients make midwifery necessary. Neither the medical profession nor the hospital facilities of Georgia are prepared for the radical steps that would be required to replace, with professional service, the care now being rendered by certified midwives. Last year 2,861 midwives attended 35.5 per cent of Georgia births. Many of these births occurred under the most primitive rural conditions in areas where transportation is poor and in families whose earning capacities are not sufficient to cover even minimum obstetrical fees.

Instruction of Midwives

The training and supervision of midwives have of necessity been kept very simple. The instructors are public health nurses with little obstetric training, and their pupils are, for the most part, the superstitious granny-women who were practicing in Georgia before the instruction and certification of midwives were undertaken.

Existing conditions demanded that teaching be directed first toward the application of simple rules of cleanliness. Seeing that midwives are supplied with properly equipped bags and inspecting them at intervals, to see that they are clean and serviceable, are considered important. Teaching them the absolute necessity for having all their patients receive prenatal care from a physician also constitutes a considerable portion of the instruction given to midwives. This last is a lesson which they have learned well.

Their teaching in actual midwifery is concerned with preparing them to conduct normal labor and to recognize abnormalities, without attempting to classify them. Their duties during parturition have been made very simple. They are taught to bathe, reassure and comfort their patients; to provide them with food and fluids and, under no conditions, to give them medication. They are instructed to allow the deliveries to occur under conditions of scrupulous cleanliness and without interference.

Their duties to the infants are also simple. They are taught to tie and dress the cords, keeping absolutely clean and using a semblance of asepsis. Great stress is laid on the essentiality of placing silver nitrate in the eyes of the babies. Considerable time is devoted to teaching and demonstrating this procedure. Unfortunately aspirating mucus and artificial respiration are beyond the capabilities of most midwives. The procedure usually taught is to lower the baby's head and cleanse the mouth and nose with the finger.

The midwives' management of the third stage of labor involves waiting for the spontaneous delivery of the placenta and gently massaging the uterus, should hemorrhage occur.

Vaginal Examinations

Vaginal examinations, once done by all midwives, are now prohibited by regulation and universally condemned by instructors. Even this definite restriction does not prevent unsterile vaginal examinations from being done. Some midwives cannot understand why they should be prohibited from doing examinations, as they were taught to do by doctors and midwives who practiced in Georgia before the rules of asepsis

were so widely applied to obstetrical procedures.

Prenatal Care

Midwives are completely incapable of rendering prenatal care. Under no circumstances can they be expected to do more than get their patients to a doctor during this period. Unless the medical profession in each locality is willing to provide prenatal care for the patients of midwives, either collectively through free clinics or individually at a cost within the patient's means, they cannot obtain such service.

Recognition of Abnormalities

Recognition of abnormalities is the most difficult of the midwives' duties. They are very poorly equipped to do this and often fail in this part of their duty. They are not trained to do any of the special examinations and must depend entirely upon general observations in their recognition of abnormalities. This fact often results in midwives allowing complications to reach advanced stages before the doctor is called.

In one county in Georgia this situation has been improved. A public health nurse, with some special training in obstetrics, visits the midwives during the time they are attending their patients. She is thus able to assist them in recognizing complications early, since she can do such examinations as urinalyses, blood pressure readings and rectal examinations. If the patients are normal, she leaves the midwives to care for them but remains on call and is available for a second visit should she be needed.

This plan has greatly improved the maternal care received by the indigent patients of this area. It has also reduced to a minimum the amount of charity work done by the medical profession in that locality. The doctor knows that when he is called by this nurse he is needed and that she will remain in the home and assist with the delivery. He also feels that he is not going to assume responsibility for a neglected, mismanaged case.

Management of Complications

The treatment of even simple complications is known to be beyond the capacities of midwives. They are prohibited by regulation from accepting cases which develop abnormalities during the prenatal period and are told over and over not to do so. They are instructed to obtain a physician as soon as they suspect that one of their patients is developing a complication.

It is obvious that, unless the medical profession in each locality is willing to accept the trying responsibility of treating such complicated cases, the patients cannot receive this service. Attempts on the part of midwives to treat abnormal cases usually end in disaster, or in some physician later assuming the responsibility of treating a mismanaged case.

The medical profession in Georgia is accepting a lion's share of this responsibility. Frequently the doctors are receiving little or no assistance from other persons in the community.

Hospital facilities within the means of the patients and more extensive and inclusive public health nursing service are needed if these patients are to receive better maternal care, without overtaxing the private physicians's time and energy.

Technical Skill

The technical skill of midwives, from the purely obstetric standpoint, is non-existent. Even the better midwives can handle only such simple procedures as tying the cords, placing silver nitrate in the babies' eyes and necessary nursing duties. A number of the better midwives are quite adept in the use of their hands and do their jobs well, but poor eyesight and unsteady hands definitely limit the skill of others.

Number of Cases Attended

A recent study revealed that 1,137 midwives, by their own statement, have either done no deliveries or less than five during the last twelve months. This study, though not accurate, leads us to believe that over 50 per cent of the midwife deliveries are now being done by less than 700 of the more active midwives.

Age

A study of the ages of midwives, conducted in October of last year, revealed that out of the 2,865 midwives certified at that time, only 594 were under 50 years of age. Of the remaining group, 1,383 were over 60 years af age, and 66 of these were over 80.

Basic Education

Approximately two-thirds of Georgia midwives are said by their instructors to be able to read and write. This is a rather misleading statement, however, since it is definitely known that the basic education of Georgia midwives is extremely low and that only a very small percentage of them read well enough to profit by self-education. Their ability to fill out a birth certificate legibly is the exception rather than the rule.

Improvement in Midwifery

Improvement in midwifery cannot be expected by simply bettering the didactic lectures and demonstrations which the midwives now receive. They are handicapped by definite deficiencies which cannot be overcome with any amount of this type of teaching.

Efforts to improve the maternal care received by the patients of midwives must be directed toward providing the midwives with better supervision and their patients with a type of maternal medical care. Supervision should include visits by the nurse during parturition, not only to instruct and supervise midwives, but to assist them in recognizing abnormalities early.

A. Starr Ingram, M.D.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
Executive Secretary—Durice Dickerson, R.N., Atlanta

131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

STATE NURSING COUNCIL ON NATIONAL DEFENSE, AND ANNUAL CONVENTION PROGRAM

DURICE DICKERSON, R.N.
Executive Secretary, Georgia State Nurses Association, Atlanta

The Executive Board of the Georgia State Nurses Association met on Saturday, August 30, at state headquarters, Atlanta, for an all day session. An outstanding activity of this meeting was the unanimous vote to organize a State Nursing Council on National Defense. This action was taken in keeping with the following resolution previously adopted:

"Whereas, The President and Congress have indicated that haste in organization is necessary in the present crisis, in preparation for National Defense, and in the extension of military training,

"Be it resolved: That the Georgia State Nurses Association extend its co-operation and the full extent of its resources and influence in plans for National Defense in the volunteer registration of women for service and in the encouragement of the extension of Nursing Service wherever concentration of trainees or other special demands for nursing service are made."

Georgia nurses have been studying various plans in order to organize a council which will serve in the broadest and most effective way. Miss Frieda Grefe, of Savannah, President of the Georgia State Nurses Association, will serve as chairman of the Council with nurses from all fields of service represented on the Council.

Colonel Richard C. Job, Executive Director, Georgia Council for National Defense, and Major Oren Warren, Assistant to the Executive Director, State Defense Corps, were guest speakers at the board meeting and explained the urgent need for close correlation of defense activities and the vital part nurses can take in the program. Mr. George Burt, President of the Georgia Hospital Association, was also a guest speaker and offered the services of the Hospital Association in promoting the work of the State Nursing Council. The facilities of the Georgia hospitals will be requested for use in setting up programs for teaching first aid and organizing classes. Hospitals will continue to play a major role.

Dr. T. F. Abercrombie, Director, Georgia Public Health Department, Atlanta, and a member of the State Council as Health Co-ordinator, will assist with organizing the Nursing Council.

The major functions of the Nursing Council will be:

1. To determine the role of Georgia nurses and nursing in the program of National Defense.
2. To unify all nursing activities which are directly or indirectly related to national defense.
3. To study Georgia's nursing resources; to plan the most effective use of these nursing resources; to provide for necessary increases; and to set up the machinery which will insure the quickest possible functioning in case of need.
4. To insure the continuance of the high quality of Georgia's nursing schools and services in order that effective nursing may be maintained in a national emergency.
5. To act as a clearing house regarding nursing and national defense, and to cooperate with other State agencies having related activities and functions.

Captain Mary Gavin, R.N., A.N.C., Assistant to Surgeon General, Fourth Corps Area, attended the board meeting and discussed the nursing needs in this area. She stated that the need was for 2,776 nurses by July 1 this year, however, there were only 1,950 on duty at that time. She further stated that at the present time there was no suffering from this shortage, but the winter months will bring on an increased shortage because of possible epidemics. One hundred Georgia nurses have accepted active duty on First Reserve and the approximate number on the regular service is 40. Six hundred and twenty-eight registered nurses from the Fourth Corps Area have been assigned to duty in the Army Nurse Corps.

A major part of the defense program is vocational guidance in nursing education. Miss Frances Champion from the Gorgia Educational Department, Division of Vocational Education, was a guest at the board meeting and suggested that the State Association work through the four divisional supervisors in vocational education in placing the vocational guidance folders in each high school and college, and in supplying speakers for the schools on nursing and nursing education.

Federal funds are available to increase the student bodies in the accredited schools of nursing. Two schools in Georgia have already applied for assistance. There are more students in our schools already, but we need many more. In supplying the needs in Federal Nursing Services, we are aware of the fact that *standards must be maintained.*

ANNUAL CONVENTION

The thirty-fifth annual convention of the Geor-

gia State Nurses Association and Private Duty Section in joint session with the Georgia State Organization for Public Health Nursing, Georgia League of Nursing Education, and State Committee American Red Cross Nursing Service, will be held October 26-29 at Gainesville with the Dixie-Hunt Hotel as headquarters. The convention theme will be "Preparedness—Watchword of the Hour." The first session will be the Advisory Council meeting on Sunday, October 26, where further discussion on the functions of the State Nursing Council on National Defense will be heard. The entire program will revolve around the defense activities. National speakers will include Miss Dorothy Deming, General Director, National Organization for Public Health Nursing, New York; Miss Mary Margaret Muckley, Executive Director, The Nursing Bureau of Manhattan and Bronx, New York; Miss Harriet Frost, Assistant Director, New York Hospital School of Nursing, New York; and Mrs. Elspeth Vaughn, Assistant National Director, American Red Cross Nuring Service, Washington, D. C.

NEWS ITEMS

Dr. T. O. Vinson, Spalding County health officer; Dr. W. D. Cagle, Regional health officer; and Dr. J. T. Leslie, pediatrician, all of Griffin, attended a special poliomyelitis clinic in Atlanta, August 9.

Dr. John M. McGehee, Cedartown, was recently elected to associate membership in the International College of Surgeons, convention held in Mexico City; Dr. Q. A. Mulkey, Millen, was elected to fellowship.

Dr. D. Henry Poer, Atlanta, was elected first vice-president of the Chattahoochee Valley Medical Association at Jacksonville, Florida.

The Fulton County Medical Society met in the Nurses' Home at the Crawford W. Long Memorial Hospital, Atlanta, August 18. Dr. O. O. Fanning read a paper entitled, *The Medical Profession: Past—Present—Future,*" discussed by Dr. W. L. Ballenger and Dr. J. Calvin Weaver; Dr. E. Durham Colvin, *A Comparison of Thyroid Extract and Iodine Therapy in Preventing Toxemia of Pregnancy,*" discussed by Dr. C. B. Upshaw and Dr. Francis P. Parker. Articles published in the August 18 issue of the Bulletin were contributed by Dr. Howard Hailey, president of the Fulton County Medical Society; Dr. C. Dixon Fowler, Dr. J. Harry Lange, Dr. Lewis D. Hoppe, Dr. M. Hines Roberts, Dr. H. Bagley Benson and Dr. Ben S. Read.

Dr. R. Bruce Logue announces the opening of offices in Suite 812 Medical Arts Building, Atlanta. His practice will be limited to internal medicine.

The Physicians Casualty Association of America has made a reduction in the $25.00 per week accident and health insurance, of $1.00 per year; in the $50.00 per week accident and health insurance, of $2.00 per year and in the $75.00 per week accident and health insurance, of $3.00 per year.

The Fourth Annual Forum on Allergy will be held in Detroit, Michigan, January 10-11, 1942.

Dr. G. Lombard Kelly, Augusta, was a guest speaker before the Savannah Rotary Club August 18. The subject of his address was *Some Health Problems in Georgia.*

The Bibb County Medical Society met on the roof of the Doctors Building, Macon, September 2. Colored motion pictures were shown.

The Tenth District Medical Society met at Hartwell on August 13. The titles of scientific papers on the program were: *Practical Suggestions in the Care of Premature Infants,* by Dr. E. R. Watson, State Department of Public Health; *Breast Tumors,* Dr. T. C. Davison, Atlanta; *Barbiturate Drugs,* Dr. Perry P. Volpitto, Augusta. Dr. B. C. Teasley, Hartwell, and Dr. G. T. Harper, Dewyrose, were in charge of the entertainment feature which consisted of a barbecue.

The Annual Conference of Secretaries of Constituent State Medical Associations will be held at the offices of the American Medical Association, 535 North Dearborn Street, Chicago, November 21-22.

The Fulton County Medical Society met in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, September 15. Dr. Edgar Shanks made introductory remarks in reference to *Health Moving Pictures,* titles as follows: *Let My People Live, I Choose to Live, Three Counties Against Syphilis, The Life of Edward Jenner,* and *Body Defenses Against Diseases.* Dr. Robert V. Schultz spoke on *The Cooperation of the Medical Association of Georgia and the County Medical Societies in Health Education.* Mrs. Leo O. Smith spoke on *Plans for the Distribution of Health Films and Health Education Literature;* discussed by Dr. Allen H. Bunce, Dr. Jas. N. Brawner, Dr. Glennville Giddings, and Dr. W. A. Selman.

Dr. J. J. Folk, formerly of Millen, and associated with the Mulkey Hospital, has moved to Statesboro and will occupy the office of the late Dr. R. L. Cone.

OBITUARY

Dr. Jacob Alex Shields, LaFayette; member; Chattanooga Medical College, Chattanooga, Tenn., 1903; aged 66; died on July 28, 1941, at his home after several months' illness. He practiced medicine in Walker and adjoining counties since graduation. He was president of the Shields-Pittman Automobile Company, chairman of the Walker County Board of Health, member of the Walker County Medical Society, Southern Medical Association, Shrine and First Baptist church. Surviving him are four daughters, Mrs. H. D. Shattuck, Mrs. G. W. Langford and Mrs. S. B. Kitchens, all of LaFayette; and Mrs. David B. Putnam, Fort Pierce, Fla.; one sister, Mrs. A. L. Williams, Chattanooga; one brother, W. W. Shields, Chattanooga. Rev. W. E. Storey and Rev. H. L. Wood officiated at the funeral services conducted at the First Baptist Church. Burial was in the LaFayette cemetery.

Dr. Ellis Grover Kirby, Bowdon; member; Emory University School of Medicine, Emory University, 1914;

aged 56; died on August 9, 1941, suddenly in his office. He was prominent in the medical profession and a successful practitioner. Dr. Kirby was one time president of the Georgia Association of County Commissioners and at the time of his death was chairman of the Carroll County Board of Education. Surviving him are four daughters: Mrs. L. D. Hamil, Buchanan; Mrs. A. O. Hallman, College Park; Mrs. H. F. Pringle, Jr., Atlanta; Miss Kathleen Kirby, Bowdon; three sons, H. A. Kirby, Nashville, Tenn.; Robert Kirby, Jackson, Miss.; and Harold Kirby, Bowdon. Rev. Elder Dittemore officiated at the funeral service which was held at the Bowdon Baptist church. Burial was in the Bowdon city cemetery.

Dr. Rufus L. Cone, Statesboro; member; Maryland Medical College, Baltimore, Maryland, 1904; aged 62; died on August 1, 1941, after a long illness. He served for a number of years on the City Council of Statesboro and was serving his second term as mayor; served several terms as worshipful master of the Ogeechee Masonic Lodge; was a member of the Bulloch-Candler-Evans Counties Medical Society and the First District Medical Society. Dr. Cone had practiced medicine in Bulloch and adjoining counties for 34 years. Surviving him are his widow; two daughters, Mrs. Everett Williams and Mrs. Alma Cone Everett, both of Statesboro; two sons, R. L. Cone, Jr., Statesboro, and Harold Cone, Millen. Rev. C. M. Coalson and Rev. J. N. Peacock officiated at the funeral services conducted at the residence. Members of the Statesboro City Council, and members of the Bulloch-Candler-Evans Counties Medical Society and physicians from Millen served as active pallbearers and as an honorary escort. Burial was in East Side cemetery.

AUXILIARY

(Continued from Page 409)

Research in Romance of Medicine—Mrs. C. L. Ayers, Toccoa.

Jane Todd Crawford Memorial—Mrs. W. G. Elliott, Cuthbert.

Revisions—Mrs. Ralph Chaney, Augusta.

Archives—Mrs. J. Bonar White, Atlanta.

Exhibits and Awards—Mrs. Charles Mulherin, Augusta.

Brawner Trophy—Mrs. H. G. Banister, Ila.

Delegates to meeting of Woman's Auxiliary to American Medical Association were named as follows:

Mesdames Allen Bunce, Eustace Allen, C. W. Roberts, W. B. Schaefer, J. N. Brawner, Ralph Chaney.

Meeting of Executive Board with Advisory Committee was announced for July 16, 1941, in Savannah.

Student Loan Fund Committee was elected as follows:

Mesdames L. W. Williams, Chairman; Ed Greene, L. W. Todd.

Mrs. W. B. Schaefer moved that Auxiliary purchase State Treasurer's remittance sheets. Motion carried. Mrs. Schaefer was appointed to prepare form for sheets.

Mrs. J. N. Brawner made motion that the Pre-Convention meeting be held at 5:00 o'clock in the afternoon instead of in the evening. Motion carried.

Adjourned.

MRS. LEE HOWARD, President.
MRS. LOREN GARY, JR., Secretary.

GEORGIA SECTION OF THE SOUTHEASTERN SURGICAL CONGRESS
ANNUAL CLINICAL CONFERENCE

ARCHBOLD MEMORIAL HOSPITAL
Thomasville
WEDNESDAY, SEPT. 17, 1941
10:00 A.M., E.S.T.

Invocation—Rev. Richard Gillespie.

1. *Ruptured Ectopic Pregnancy*—Dr. J. C. Davis, Quincy, Florida.
   Discussors—Dr. C. K. Wall, Thomasville; Dr. K. McCullough, Waycross.
2. *Carcinoma of the Uterus*—Dr. Gilbert Douglas, Birmingham, Ala.
   Discussors—Dr. Enoch Callaway, LaGrange; Dr. Chas. H. Richardson, Macon.
3. *Kidney Ptosis*—Dr. J. U. Reaves, Mobile, Ala.
   Discussors—Dr. S. T. Brown, Atlanta; Dr. J. L. Pittman, Atlanta.
4. *Tumors of the Rectum*—Dr. Geo. Eubanks, Atlanta.
   Discussors—Dr. A. H. Hilsman, Albany; Dr. M. C. Pruitt, Atlanta.

Lunch—Archbold Memorial Hospital

Greetings—Dr. J. A. Redfearn, President-Elect, Medical Association of Georgia.
Dr. A. H. Bunce, President, Medical Association of Georgia.
Dr. B. T. Beasley, Secretary-Treasurer, Southeastern Surgical Congress.

2:00 P.M.

5. *Tumors of the Breast*—Dr. Fred Waas, Jacksonville, Florida.
   Discussors—Dr. D. N. Thompson, Elberton; Dr. J. C. Read, Atlanta.
6. *Compound Fractures*—Dr. H. W. Jernigan, Atlanta.
   Discussors—Dr. C. H. Watt, Thomasville; Dr. J. C. Brim, Pelham.
7. *Peptic Ulcer*—Dr. Geo. W. Fuller, Atlanta.
   Discussors—Dr. Gordon Chason, Bainbridge; Dr. J. Gaston Gay, Atlanta.
8. *Acute Appendicitis, Ruptured*—Dr. J. C. Patterson, Cuthbert.
   Discussors—Dr. A. H. Lisenby, Panama City, Fla.; Dr. A. D. Little, Thomasville.

CORRECTIONS

In the article by Dr. T. I. Willingham, Atlanta, on "Duodenal Ulcer in Children," pages 271-274 of the June, 1941, issue of THE JOURNAL: the illustrations 1 and 2 were transposed. Number 2 should have appeared in the position of number 1; and number 1 in position of number 2.

In the article of Dr. J. R. S. Mays, Alexandria, Va., and Dr. Y. H. Yarbrough, Milledgeville, entitled "Chronic

Hypoglycemia in Psychotic Patients Following Prolonged Insulin Shock Therapy," published on pages 353-356 in the August, 1941, issue of THE JOURNAL, the sentence which began on line 20 in the first column on page 355 should have been, "Blood sugar readings during this period ranged from 66-133 mg. averaging about 90 mg. The sentence which began on line 26 of the same column and page should have been as follows: "Fifty-one per cent of these readings were below 48 mg. and 19 per cent were from 10 to 30 mg.

In the article by Dr. Exum Walker, Atlanta, on "Scalenus Anticus Syndrome (Brachial Neuritis) on pages 356-359 of the August issue of THE JOURNAL, the numbers 2 and 3 illustrations on page 358 were transposed. Number 3 should have appeared in the position of number 2 and number 2 in position of number 3.

RETURN YOUR INFORMATION CARD FOR THE DIRECTORY PROMPTLY

About September 1, an information card will be sent from the headquarters office of the American Medical Association to every physician in the United States and Canada. The information secured is to be used in compiling the Seventeenth Edition of the *American Medical Directory*.

The directory is prepared at regular intervals in the Biographical Department of the American Medical Association. The last previous edition appeared in 1940. This volume is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States; it has been especially valuable in the medical preparedness program. In it, as in no other published directory, are dependable data concerning physicians, hospitals, medical organizations and activities. The directory provides full information concerning medical colleges, specialization in the field of medical practice, memberships in special medical societies, tabulations of medical journals and medical libraries and, indeed, practically every important fact concerning the medical profession in which any one might possibly be interested.

Before filling out the information card, read the instructions carefully. Physicians are especially urged to state whether or not they are on extended active duty for the medical reserve corps of the United States Army and Navy. Fill out the card and return it promptly whether or not a change has occurred in any points on which information is requested. If a change of address occurs before March 1, 1942, report it at once. Should you fail to receive a card before the first of October, write at once to the headquarters office stating that fact and a duplicate card will be mailed.

SPARTA DOCTOR HAS ENJOYED A LONG EXPERIENCE

PRESIDENT OF THE HANCOCK COUNTY MEDICAL SOCIETY HAS PRACTICED HERE 62 YEARS

When the Hancock County Medical Society entertained the Sixth District Society, June 25th, the guests were greeted by Dr. Horace Darden, one of the oldest graduates of the Georgia Medical College and president of the local group. Graduating at the age of 21 years, Dr. Darden has practiced his profession in Hancock County without interruption for 62 years and is still able to drive his own car and make his calls on patients daily. Although now 83 years of age, he gets about as spry as a man much younger and his mind is just as alert as a youngster's.

Dr. Darden has always been greatly interested in the work of the Sixth District Society and has been a regular attendant upon the meetings held annually. He has headed the society here for a number of years and has hosts of friends over Hancock County who join The Ishmaelite in congratulating him on his long service to suffering humanity in this section.

—Sparta Ishmaelite, Sparta, June 19, 1941.

THE DOCTOR IS A SOLDIER

"Early in June, more than 7,500 American doctors went to Cleveland, Ohio. They went there to attend the annual meeting of the American Medical Association, which is the largest meeting of its kind in the world. And this year the gathering was of more than ordinary interest, for its dominant note was the role of medicine in the national preparedness program.

"It is apparent that the public health is a very vital factor in defense. And that concerns more than the health of our new and fast-expanding army, important as that is. It concerns the health of millions of men who work in our factories, and who operate the machines which produce the implements of war. It concerns the health of farmers, who raise our food. It concerns the health of the civilian population, which must play its part in one way or another to speed the defense drive to a successful consummation.

"The doctors of America are the custodians of the public health. Upon them rests the gigantic responsibility of curbing and fighting those diseases which take men's lives, which reduce men's productive capacities, which waste and destroy great human resources. And any layman, attending the Medical Association's meetings, would have been mightily impressed by how the doctors are meeting that responsibility. More than 250 papers describing advances in medicine were read, and elaborate scientific and technical exhibits were shown."

—Monroe News, Monroe, Ga., July 1, 1941.

SQUIBB RELEASES PARENTOSOL-B

A High-potency Preparation of Thiamine, Riboflavin and Nicotinamide

A high-potency preparation for intravenous administration containing three pure synthetic vitamin B complex factors indicated in the treatment of pellagra and other conditions involving severe deficiency of thiamine, riboflavin and/or nicotinic acid, has been developed by E. R. Squibb & Sons, New York. It is supplied in 1-cc. ampuls, each cc. containing 10 mg. thiamine hydrochloride (3,333 U.S.P. XI units), 1 mg. riboflavin and 100 mg. nicotinamide, and is sold in boxes of six ampuls.

Evidence is increasing that under certain circumstances an amount of vitamin B_1 in excess of that ordinarily received in the diet may be desirable, and that deficien-

cies of at least two other members of the vitamin B complex, nicotinic acid and riboflavin, are relatively common. Parentosol-B represents a potent and well-balanced combination of these three factors. It is particularly useful in pellagra, because, although pellagra patients respond to administration of nicotinamide with disappearance of many of their symptoms, thiamine often is required to relieve the peripheral neuritis and riboflavin to cure the cheilosis which frequently accompanies the condition.

Parentosol-B has already enjoyed a long and useful clinical career in the hands of some of the country's leading investigators in the field of the B complex. It has been recommended in the treatment of B complex deficiency associated with liver damage, diarrheal diseases or other interference with assimilation.

Parentosol-B is administered intravenously in a daily dosage of 1.0 to 2.0 cc. for adults and 0.5 to 1.0 cc. for children.

CONSERVE MEN, MONEY, AND MATERIALS IN ESSENTIAL INDUSTRIES

In times like these, when industry is confronted with emergency production demands, the need for more effective accident controls in order to conserve men, money and materials becomes of paramount importance. Plant expansion, development of new processes, maintenance of heavily worked equipment, employment of new workers and other similar problems call for more than usual ingenuity and skill on the part of management, if a "job" is to be done not only well but safely.

These vital considerations are emphasized in a new report issued by the Industrial Safety Section of the Metropolitan Life Insurance Company. The report is entitled, "Conserving Men, Money, and Materials in Essential Industries." It is basically a discussion check list for the industrial executive concerned with emergency production.

The report lays particular stress on the proper consideration of accident costs. Of far greater significance than the threat of personal-injury accidents are the enormous potential losses of precious time and the spoilage of equally precious materials that result from mishaps sometimes termed "near accidents"—indirect losses which are generally overlooked in compiling accident reports or statistics, yet which to the production executive represent very real items of industrial waste.

As an aid to the study of industrial accidents and to point up proper means for their control, the report briefly develops several fundamental considerations for employee safety.

Copies of this report are available to executives who address the Bureau on their business stationery. Address: Policyholders Service Bureau, Metropolitan Life Insurance Company, One Madison Avenue, New York, New York.

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FURTHER OBSERVATIONS ON THE TREATMENT OF CANCER OF THE BREAST

A Review of One Hundred and Thirty-Nine Reports of Cases

THOMAS HARROLD, M.D.
Macon

Four years ago, when the Association last met in Macon, I read a paper entitled "X-Ray Therapy in Carcinoma of the Breast." In that paper a general review of the whole subject of treatment of carcinoma of the breast was made with special reference to the newest types of x-ray therapy. Attention was called to the recent advances in x-ray therapy, the opinion was expressed that preoperative therapy was superior to postoperative therapy and a plea was made for less radical surgery in the advanced cases with the idea that better palliative results could be obtained by means of radiation.

During the past four years the ideas expressed in that paper have been applied fairly systematically in the treatment of patients coming under my care. The patients included in this review have all been treated at least in part by me and have been seen in my office, the office of Dr. C. C. Harrold and in the State Cancer Clinic operated at the Macon City Hospital. I wish now to express my appreciation to Dr. C. C. Harrold, Dr. James Fountain and Dr. Max Mass for their encouragement, support and advice in the handling and collection of this group of cases. The period of time covered in this study is from 1931 to 1940 inclusive. One hundred and thirty-nine case reports are available for study and sufficient information and follow-up data for tabulation are available in one hundred and thirty-five cases.

A survey of the literature on the subject of cancer of the breast in the past few years does not reveal any strikingly new or revolutionary advances in the treatment of this disease. Four years ago the literature was filled with discussion of relative merits in different types and combinations of radiation and surgery. This discussion continues at the present time and no positive conclusions have been reached. However, after reading the literature one can sense a beginning crystallization of opinion throughout this country and the world in regard to the value of and the place of x-ray therapy. Reports of large collected series of cases from various places all seem to indicate quite definitely that postoperative radiation produces about 10 per cent more 5-year cures than does radical surgery alone. For instance, Dawson and Todd collected statistics on 5,615 patients who were treated by operation alone with 34.3 per cent 5-year cures. They also collected another group of 1,785 patients treated by operation plus postoperative x-ray with 44 per cent 5-year cures. Other reports show substantially the same general results. In spite of the statement made by Giles that 85 per cent of surgeons prefer to operate first and then give postoperative x-ray, most of the more recent papers published indicate a growing tendency toward the use of moderate preoperative therapy followed in some cases by postoperative therapy as well. In fact, two of the most outstanding authorities in this country support this view. Adair, of New York, states that, although the picture is still quite confusing, it is his belief that eventually the best mode of treatment will be a combination of preoperative and postoperative therapy. Pfhaler endorses the same idea and expresses the belief that, in

Read before the Medical Association of Georgia, Macon, May 14, 1941.

those patients in whom the axillary glands are involved, 5-year cures will be doubled. Inasmuch as involvement of axillary glands is present in 80 per cent of the patients who present themselves to us for treatment, this strong statement is of great value. Orr, Professor of Surgery at the University of Kansas, states that surgery plus x-ray is much superior to surgery alone and he feels that the combination has definitely decreased the instances of local skin recurrence and ulceration. He prefers to give heavy preoperative x-ray followed eight to ten weeks later by the radical operation. In an excellent paper read before this Association two years ago. Dr. Enoch Callaway emphasized the point that when an operation follows x-ray therapy the excision of the skin should be just as wide as it would have been had no regression of the tumor occurred. With this point I agree most heartily.

The opposite extremes of opinion are expressed by the following authors: Lund, of Boston, depends almost entirely on surgery and uses postoperative x-ray only in selected cases. Simmons, Taylor and Adams, reporting from the Massachusetts General Hospital, on cases treated from 1927 to 1929 concluded that postoperative x-ray was of no value and they, therefore, depend entirely upon surgery. At the opposite extreme is Dorrance, of Philadelphia, who does not believe in the radical operation if the axilla is involved. He believes that x-ray therapy gives a longer period of relief with fewer secondary recurrences. He advises surgery only in selected early cases.

Inasmuch as Coutard originated and developed the most generally accepted method of x-ray therapy, anything that he says on the subject should be listened to with respect. He is quoted by Rankin as follows: "Inasmuch as radiation has not as yet produced the cure of an appreciable number of inoperable adenocarcinomata over a period longer than five years, those which are technically and biologically operable should by preference be operated upon, as a rule, after moderate external irradiation."

One interesting sidelight in the study of my group of cases is that, of the one hundred and one white women, thirteen of them were old maids. It would seem that this is a higher percentage than the occurrence of old maids in the general population; however, the census figures show that old maids constitute about 10 per cent of the female population so that the number found in this series is not so striking after all. There was also noted that in the series there were three men with carcinoma of the breast. This corresponds with the usual statistics given for the incidence of carcinoma of the male breast.

In talking to these patients, from time to time, I have been very impressed by the large number of them who give a history of lactation mastitis and actual abscess necessitating incision and drainage. A number of them have had visible scars dating back twenty or thirty years. In going over the case records I could find only a few in which this fact had been written down. However, it is my impression that such a history is given by at least 15 or 20 per cent of all women with cancer of the breast. Lund states that in his series of cases at least 10 per cent give a history of breast abscess. Klose states that from 20 to 35 per cent of patients give a history of previous abscess. I have been so impressed by this fact that several times I have advised women to have a simple mastectomy done after an abscess had healed. So far none of them has taken my advice. I feel quite strongly about the matter and I shall continue to give this advice in cases where there is extensive involvement of the breast by an inflammatory process, whether my advice is followed or not. I realize that the advice is radical but I believe that it is justified.

From a statistical standpoint the most outstanding factor brought out by this study is that such a high percentage of all women coming to us for treatment were in an advanced stage of the disease when first seen. This fact emphasizes the necessity for more and better educational campaigns directed toward the laity. Of course, one doctor is likely to see another doctor's mistakes and not see his own. It seems to me that there are entirely too many patients in this group who received incorrect advice or treatment

from the first doctor whom they consulted. There were several instances in which a tumor of the breast was "lanced" or incompletely excised, several others were told by their family physician to ignore tumors of the breast and who did so until the cancer reached an advanced stage. Whatever the cause, the fact remains that of the one hundred and thirty-three patients in whom a description was accurate enough to permit a classification only eight or 6.7 per cent were in the early group I, 16.5 per cent in group II, 37.6 per cent in group III and 39.2 per cent in group IV; (see Table 1). Unless or until we can so change circumstances in Georgia that the distribution of these figures is substantially reversed we cannot hope to accomplish much in the way of permanent cure or even 5-year survival. It is all very well to read the statistics showing a high percentage of cures published by various hospitals, clinics and individuals; but unless one knows what proportion of their cases fall into the early groups there is no basis for comparison.

TABLE 1

Group	I	II	III	IV	Total
Number of Cases	9	22	50	52	135
Per Cent	6.7	16.5	37.6	39.2	100

Inasmuch as this group of cases is a mixture of private and clinic cases it was thought it might be interesting to see whether or not the private patients seek attention in earlier stages of the disease than do the charity patients. This is shown in table 2.

TABLE 2

Group	I	II	III	IV
Private				
Number of Cases	7	13	29	23
Per Cent	9.7	18.2	40.1	32.0
Clinic				
Number of Cases	2	9	23	29
Per Cent	3.2	14.3	36.5	48.0

As might be predicted, private patients do seek attention earlier in the course of the disease than do the clinic patients. However, the difference is not as great as one might think as 72 per cent of the private cases were in groups III and IV whereas 82 per cent of the clinic cases were in these two groups.

A comparison is also made between Negro patients and white patients in table 3.

TABLE 3

Group	I	II	III	IV
Negroes				
Number of Cases	1	6	10	19
Per Cent	3.0	16.6	27.7	52.7
Whites				
Number of Cases	8	14	40	31
Per Cent	8.6	15.1	43.0	33.3

Adding groups III and IV together we find that 80 per cent of the negroes fall into this group whereas 76 per cent of the whites are found in this advanced group. There is a rather striking difference, however, in the two races as between groups III and IV. Fifty-three per cent of the negroes were in group IV whereas only 33 per cent of the whites were in the worst group. This is not a very significant difference, however, as the mortality rate in the group III cases is almost as high as in the group IV, and from an educational standpoint it is most important that patients be taught to seek treatment while they are still in either group I or group II.

The group of patients treated between 1931 and 1936 gives us a series of thirty-three cases. The records and follow-ups are incomplete or unsatisfactory in two cases, leaving thirty-one in whom the final outcome is definitely known. These results are shown in table 4.

TABLE 4
1931-1936—Total Cases 33
Insufficient data, 2

Groups	I	II	III	IV	*Per Cent*
Living and apparently well 5 years or more	1	1	1	—	9.6
Lived 5 years or more and died of causes other than cancer	—	1	1	—	5.4
Died of other causes in less than 5 years	1	1	1	2	16
Living with evidence of cancer more than 5 years	—	—	—	1	3.2
Died of cancer after 5 years or more	—	1	—	1	5.4
Died of cancer in less than 5 years	1	1	6	10	58

Although this is a rather small group it seems to me worthwhile to discuss a little in detail the different classifications of this

series. Of those patients living and apparently well for five years or more, the group I case was a Paget's disease, proved by pathologic examination to be truly malignant. It is well known that Paget's disease carries a somewhat lower mortality rate than does cancer of the breast in general and, this being an early case, a good result was to be expected. The group II case who is alive and apparently well ten years after operation is a little surprising inasmuch as she might be classified as a group III because of the fact that several small glands were found in the axilla. The group III patient alive and apparently well is quite surprising in that she was only thirty-five years old and I remember quite well that there was apparently some edema of her breast and a large gland in the axilla. In fact, I doubted the operability of this patient. I saw her in consultation with Dr. C. H. Richardson, who did operate on her. All three of these patients had what was considered adequate postoperative x-ray therapy.

In the next group there were two patients who lived more than five years free of the disease and definitely died from some other cause. One of these was a group III case who was operated on and was given postoperative x-ray therapy, and who died more than five years later of myocardial failure. The other was a group III case who lived eight years and died of coronary occlusion. If groups I and II are added together and considered 5-year cures we get a percentage of sixteen. There were five patients who lived less than five years but did not die of cancer. One was a group I case who died of apoplexy after four years. Another was a patient over eighty years old when first seen who died of pneumonia a year later with no evidence of disease. Another patient was eighty years old with a group IV growth which was kept under control by use of x-ray alone for four years at which time she died of apoplexy. Another died of pneumonia three years after treatment with no evidence of disease. There were two patients who lived more than five years but ultimately died of cancer. One of these was a group II case who was free of disease for nine years and then developed widespread metastases in the lungs. The second one was a group IV recurrent case in whom only palliation was expected and who lived much longer than was anticipated. It is noteworthy that 58 per cent or almost three-fifths of all cancer patients die of cancer in less than five years.

The 1937-1938 group is composed of fifty cases. These are shown in table 5.

TABLE 5

Groups	I	II	III	IV	*Per Cent*
Living and apparently well more than 3 years	2	—	4	1	14
Living with active disease	—	—	3	3	12
Died of other causes	—	1	1	—	4
Living and well less than 3 years	—	—	2	—	4
Died of cancer after 3 years	—	—	1	—	2
Died of cancer less than 3 years	1	4	13	14	64

It is realized that 3-year results mean little and no attempt will be made to analyze this table in detail. One interesting fact is evident when a comparison is made between the 5-year and 3-year groups of cases. In both groups approximately 60 per cent of the patients died of cancer in less than three years, or five years. This indicates that the vast majority of patients dying of cancer do so in less than three years and that probably comparatively few die between three and five years.

In the past five years, or longer, our policy in regard to treatment of carcinoma of the breast has been somewhat as follows:

Groups I and II:—In this combined group of early cases, or whenever there is any reasonable doubt as to the diagnosis of cancer, an immediate operation (either local excision or simple mastectomy, usually the latter) is advised. As soon as the suspicious tissue is removed it is examined in the gross immediately and if the diagnosis is still in doubt a frozen section is made while the patient is under the anesthetic. Of course, if cancer is found the radical operation is performed and the patient is then given a course of postoperative x-ray therapy. Where the clinical diagnosis is

obviously cancer but the condition is clearly operable, and especially if there are glands in the axilla, a preoperative cycle of x-ray therapy is given followed after six or eight weeks by the radical operation. It has been our practice to give full tolerance dosage of x-ray in the preoperative cycles so that we have not made a practice of giving post-operative therapy except in those cases where local or regional recurrences take place.

Groups III and IV:—In the more advanced groups, which are definitely inoperable, we give a full tolerance cycle of x-ray therapy and plan to give no more treatment except as a purely palliative local procedure. For example, we occasionally perform simple mastectomy if the involved breast is very large in order to avoid or remove an offensive or ulcerating condition. Occasionally when the tumor reduces in size greatly but does not entirely disappear, and particularly if the breast is small and the chest wall is thin, we occasionally implant radium needles into or underneath the residual tumor. Regional recurrences or metastases are treated either by a sharply defined, large dose of x-ray or the implantation of radium. It is our firm belief that if a patient is clinically inoperable when first seen, the radical operation should never be done in the future, no matter how much improvement is produced by x-ray. Taylor and Bruce, and Callaway have arrived at the same conclusion. In the two or three instances where, for various reasons, we have gone against this conviction, in every instance there has either been prompt local recurrence or other reason to make the result less satisfactory than would have been the case had the operation not been done.

The types of treatment used in different years is shown in table 6.

There are two or three lessons which I have learned in the past few years which I hope to profit by in the years to come:

1. I have come to the conclusion that it is not wise to give a full tolerance dose of x-ray therapy as a preoperative procedure. In the past I have tried to give a dose of 2000 r of 200 K.V. x-ray through each of two ports through the breast and at least two ports through the axilla. This has produced remarkable regression in many breast tumors and axillary glands. However, the violence of the skin reaction, especially in the axilla and in the fold underneath the breast, has been so great in some instances that weeks or even months have been required for healing of the blisters and in operable cases this does seem perhaps an unduly long time to wait before performing the operation. In the future I shall probably give at least 25 per cent less x-ray to these patients upon whom I definitely plan to do the radical operation and reserve the heavier dosage for those patients in whom x-ray therapy will be the only therapeutic procedure.

2. In the future I shall exercise greater care in directing the beams of x-ray tangentially across the surface of the chest rather than permitting as much x-ray to penetrate the pleura and lung as I have in the past. Definite pleural and pulmonary fibrosis with retraction of trachea toward the affected side has occurred in approximately 25 per cent of the patients treated with full dosage in the past. Although this fibrosis has not been fatal or permanently disabling, in several instances it has caused a most distressing cough and some dyspnea

TABLE 6

	Palliative Oper.	*Radical Oper.*	*Preoper. X-Ray*	*Postoper. X-Ray*	*Pre & Post-Oper. X-Ray*	*X-Ray Alone*
1931-36	4	16	3	15	—	7
1937	—	10	3	6	—	3
1938	3	19	10	9	2	21
1939	3	12	9	3	—	6
1940	2	10	7	4	1	15
TOTALS	12	67	32	37	3	52

which lasted for several weeks or months and in one or two instances was severe enough to be alarming. Furthermore, in thin women with small breasts the deep penetration of x-rays generated at 200 K.V. is not necessary or desirable and 140 K.V. is ample voltage for use in cases of this type; 200 K.V. can still be used in the axilla. In giving postoperative x-ray therapy. 140 K.V. is ample voltage for the application of x-ray to the relatively thin-chest wall.

3. Although in many patients given a tolerance dose of preoperative x-ray the incisions heal perfectly per primum, there is a definite percentage, possibly 30 per cent, in whom the healing is very bad. It has seemed to me that these tissues are unusually prone to infection, and once infection has occurred there is no resistance to it whatsoever. In other instances the subcutaneous fat and tissues have become seminecrotic and have eventually sloughed in a manner that is peculiar to these patients receiving x-ray therapy. By this I mean that the slough was not due to undue tension of the skin flaps, and has occurred in one or two patients where the excision of the skin was so large that no attempt at closure was made. This untoward effect on healing is another reason for reducing the dose of x-ray given as a preoperative procedure.

These observations tend in no way to mitigate my enthusiasm for preoperative x-ray therapy, for I still believe in it most firmly. I have less faith in postoperative therapy but inasmuch as experts all over the country seem to indicate that it is of value I feel that patients should be given whatever benefit it has to offer. Care must be used in controlling the dose if preoperative therapy has been given.

Summary

1. A critical analysis of one hundred and thirty-nine cases reported of carcinoma of the breast has been made.
2. The value of preoperative x-ray therapy is again emphasized, but certain precautions in its use are pointed out.
3. Attention is invited to the fact that 80 per cent of all my patients were in an advanced stage of the disease when they first sought medical attention.

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DISCUSSION ON PAPER OF DR. THOMAS HARROLD

Dr. J. L. Campbell (Atlanta): I am very glad indeed that Dr. Harrold has presented this paper because he has brought out some very valuable points in the treatment of carcinoma of the breast. I agree with him in almost all the statements that he has made.

There is one point that I would like to emphasize. He said that the incision should be made as wide in operating on patients that have received x-ray treatment as on those that have not received it. When I make up my mind that an operation should follow x-ray treatment I mark out the line of incision before starting the x-ray treatment, because the treatment usually contracts the tumor so that one is rather loath to make an incision as wide as it ought to be.

I think that Dr. Harrold is a little radical in his advice to women who have had abscesses during the early months of lactation. I have just operated on a patient for carcinoma of the breast who had a lactation abscess during one of her lactation periods. She is 42 and has had nine children. Women are loath to have their breasts removed and will not consent unless some serious condition can be positively demonstrated. He says that no one has ever followed his suggestion and I doubt that

they will. However, the matter should receive serious consideration if statistics quoted by Dr. Harrold and his own observations in this class of patients are correct. On the other hand, some observers who have reported large series of breast carcinoma give no consideration to lactation abscesses and some state that it has no etiologic bearing whatever.

The very careful study that Dr. Harrold has made of his cases presents a discouraging picture to those of us who have been working so long to disseminate, both to the profession and to the people, the value of early diagnosis. Our greatest trouble is the lack of positive symptoms in early cancer of the breast. We are all afraid of pain. If cancer was only painful in the early stages many lives would be prolonged; but when a lump does not cause pain it is supposed by most people to be of little consequence.

We regret to note that of Dr. Harrold's 133 patients only 6.7 per cent could be put in Group I. the strictly early; whereas nearly six times that per cent had to be placed in Group IV. We have been a little more fortunate at the Sheffield Clinic. This may be due to our annual conference to which some outstanding cancer student is invited to conduct the clinic; many doctors from various parts of the State attend.

As Dr. Harrold has pointed out, education for the profession as well as the people is badly needed. The records at the Sheffield Clinic show that, out of 210 patients seen during the past six years, 44 (or approximately 20 per cent) were early. We had more absolutely hopeless cases than Dr. Harrold had and many of our patients who had been operated on in small hospitals came in for postoperative x-ray treatment. Some of these had had very careful and thorough operations; while in others the operation was poorly done, scraps of breast tissue left along the margin and the axilla incompletely cleaned out.

Our mortality at Sheffield Clinic was rather high: 76 patients or 36 per cent have already been reported dead. Strange to say, a proportionately larger number in Group I have died than in some of the other groups.

There is no doubt in my mind about the value of x-ray treatment. In some patients it should be given before operation, in others postoperatively. If a patient comes in sufficiently early I do not see any need of x-ray treatment; but if the pathologist finds nodes in the axilla it should be given as soon as possible after the operation.

In advanced cases x-ray reduces the danger of ulceration and causes recession of the tumor, but I doubt if it has any influence on metastasis.

I want to congratulate Dr. Harrold on his splendid paper and I hope it may impress the profession so that they will watch more carefully for early symptoms.

Dr. Arthur D. Little (Thomasville): We have thoroughly enjoyed Dr. Thomas Harrold's paper, and I am glad we are able to agree with him on all essential points. We especially wish to commend him on attempting to base his treatment on a definite system, as this is the only way we will be able to evaluate our results.

To be sure we cannot treat every patient the same way, but we can at least attempt to form certain classifications or groups, and then fit the individual case into one of the groups, and carry out the treatment that has been predetermined for that group.

The other two surgeons, the roentgenologist, and the pathologist at the John D. Archbold Memorial Hospital, have for sometime been in agreement as to the more or less uniform procedure in various groups of breast cancers. In one group, we do simple mastectomies with pre- or post- or pre- and postoperative deep therapy. In another group, we think radical excision with postoperative therapy is the method of choice, while in still another group we feel quite sure that deep therapy alone should be used.

You will please note that we believe that no patient, regardless of type, can be adequately treated without deep therapy; while at least two types, namely, inflammatory carcinoma and carcinoma with palpable superclavicular glands, should never be considered surgical.

Once we are able to segregate the various types and then standardize the treatment in each type, we will be able to collect valuable statistics and, in our humble opinion, produce a much higher percentage of 5 and 10-year cures.

Dr. Harrold classified or grouped his cases in a most accurate and valuable manner. We have had a similar experience in having a large percentage of breast tumors in an advanced stage, but we believe we are now seeing more early cases than previously, which is a good sign that the general public is being educated about cancer. We feel the same way about scarred breast as Dr. Harrold does, and we also think that chronic mastitis and breasts with multiple blue-dome cysts should be amputated.

I shall ask Dr. Harrold if he is able in most cases to close the skin incisions, and when not able to close without undue tension if he does an immediate graft or does he do a graft after he has a granulating base? Also do you sterilize all premenopausal cases? And do you think this procedure has any deterrent effect on metastasis?

We feel that for the very good reasons advanced by Dr. Harrold preoperative therapy should be limited, and postoperative therapy is probably of much greater value.

The essayist's point, as to the directing of the x-ray beams, and consideration of the size of breast, is most interesting and should prove of great value to those who are interested in the treatment of breast tumors.

Dr. Harrold and his associates may justifiably feel proud of the results which they have been able to report, and we are glad this paper has been presented; for it will encourage all of us to renew our efforts in the hope of bettering our own statistics.

We have had a good percentage of patients to develop nodules along the line of incision regardless of the amount of skin removed, and Dr. Collins believes that proper superficial raying of the skin where dosage can be properly and accurately controlled will prevent this unfortunate complication and a unit for this kind of therapy is now being installed at our hospital.

We wish to especially commend Dr. Harrold for the way in which he has followed up his patients, for we know what a task it is to keep in touch with them; but

if we are to profit by our experience we must obtain reports on final results.

Will ask Dr. Harrold if any of his patients developed postoperative edema of the arm, and if he thinks it can be prevented and, if it does occur, what is best treatment?

Dr. John Funke (Atlanta): It might seem strange for a pathologist to discuss a paper on treatment, and it may be a bit presumptuous. My only reason for speaking at this particular time is that in all those cases of radiation resistant, or radiation-fast cancer, that I have had occasion to examine, I have been struck with the compactness of the fibrous tissue in the area of the cancer. I have been struck by the marked changes in the blood vessels. The compactness makes such lymph spaces extraordinarily small. That leads me to think that there is very little fluid in the area.

Now, if we contrast that picture with one in which we see results from the radiation, and in those particular areas in which the effects are most marked, we have an entirely different picture. There you see an edema of the breast. The cancer cells show various changes. Some are swollen, the cytoplasm is translucent and finely granular, the chromatin is pushed to the side and lying along the nuclear membranes, while other cancer cells are disintegrated. In the same section there are areas in which there is a lot of compact fibrous tissue. Here the cancer cells are small and hyperchromatic. The cytoplasm is compact and granular-perfectly viable cells. That would lead one to suspect or set one to thinking that probably the tissue fluids play a very important part in the conduction of rays as they pass through this tissue or increase ionization. I don't intend to go into this process of the effects of radiation on the cell but I merely want to call your attention to the Failla's theory and I emphasize it at this particular time because it fits in so well with what has just been described. He suggests that radiation has the effect upon protein content of cytoplasm so as to break it down into a substance that becomes ionized electrolytically. That electrolytic factor is the important phase in the effect of the radiation upon the cells. He believes that as a result of the radiation the ion concentration of the fluid outside the cell and within the cell is increased and he claims that the heightened ion concentration of the fluid on the outside of the cell can be remedied by the fluids which dilute the substances and carry them away.

Dr. Thomas Harrold (Macon): I'd like to read just one or two sentences in finishing the paper here.

Dr. Campbell has every right to disagree with me in regard to mastectomy following breast abscesses, but I am of the opinion still. It has been striking to me to see women come in with scarred breasts, which they state were the site of abscesses five, ten or twenty years before and which now contain cancer at site of the scar. I have seen this so many times that I am thoroughly convinced in my own mind that there is an etiologic connection between breast abscesses and subsequent malignancies. For this reason I believe that large numbers of cancers of the breast would be prevented if the entire breast was removed a few months after the healing of an extensive abscess.

In regard to x-ray therapy in the early group I cases, I would like to emphasize the fact that surgical cures are claimed in only 80 per cent of cases; or to reverse this statement, one may say that at least 20 per cent of the early cases die of cancer when surgery is the only treatment. In all surgical conditions, other than cancer, a 20 per cent mortality would be considered extremely high and I do not think we should be satisfied with such a high percentage in this early group. Therefore, if x-ray therapy is of any value in treatment of any cancer of the breast, I believe that every group I case should be given the benefit of it in an effort to reduce the 20 per cent mortality as much as possible.

Except in extensive, advanced cases, we are usually able to close the skin but the area to be excised is outlined first without regard to the possibility of skin closure. Secondary skin grafting is done if necessary.

We do have cases of edema of the arm. Halsted said that most, if not all, of the swelling in the arm is due to infection, however mild, in the postoperative wound proved this fairly conclusively. Unfortunately in cases which are given full doses of preoperative x-ray therapy there is a higher percentage of postoperative wound infection than we like. Once swollen, I know of no satisfactory treatment.

In regard to sterilization, I believe in and practice sterilization of women with cancer of the breast if they have not passed the menopause. I have seen most striking results in patients with bone metastases. The metastases absolutely disappear and the bone is restored to normal. True enough, metastases recur there and elsewhere. Sterilization has not affected the ultimate outcome, but as a palliative procedure I know of few things worth as much.

SPEECH DEFECTS OF CHILDREN

The causes for sound substitutions or omissions in words in the speech of young children may be both functional and organic, Ruth E. Beckey, Ph.D., Columbus, Ohio, says in a recent issue of *Hygeia, the Health Magazine*. Fortunately, she adds, many of the substitutions are due to faulty training, too much isolation, overstimulation, defective models for imitation and too much criticism by the parents. However, many of the organic defects of the speech apparatus may be repaired if the child is taken to the surgeon or orthodonist (dentist who specializes in prevention and correction of irregularities of the teeth) early enough. The teeth may need to be straightened before the child can say some of the sounds. If the front teeth have not yet appeared, and the "s" is defective, the best plan is to wait for the teeth to appear. The "s" may take care of itself. If hearing is suspected to be defective, an audiometer (device to test the power of hearing) check should be made to determine whether the child is hearing all of the different speech sounds accurately. The parents should also try to remove any unfavorable factors in the child's environment which may be impeding his progress, Dr. Beckey warns.

TRENDS IN MEDICAL EDUCATION IN GEORGIA

Undergraduate Medical Education

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The trends in medical education in Georgia during the last three decades have been both general and specific. The general trends have been toward a better preparation of the student for the study of medicine and toward the development of a better medical school in which to train the student.

From a high school diploma entrance requirements have gradually risen from one year of college premedical training to two years of college premedical training, which is now the required minimum, and finally to a practical minimum of three years of college premedical training, although about three-fourths of the freshman medical students in Georgia now have a Bachelor's degree on admission. The increased years of premedical preparation have not only resulted in a greater maturity of the student at the time of admission but have provided the student with training in the basic premedical sciences, much of which, prior to three decades ago, had to be taught in the medical school. As a result of this increase in premedical training the students are better educated in scientific and cultural subjects and have a broader foundation on which to base their medical education.

The medical schools on the other hand have undergone great changes, particularly in the addition of full-time preclinical teachers for teaching the subjects of the first two years in a thoroughly intensive manner. Improvements in physical quarters and in equipment have gone hand in hand with the improvements in the teaching staff, so that the environment in which medical students have been taught during the last three decades has gradually improved.

There has also been a trend toward employment of full-time teachers in the clinical years, particularly in medicine, surgery, obstetrics, gynecology and pediatrics. The reason for this was that such a full-time head with an office in the medical school or hospital could give most of his time to teaching and research although in most instances the teachers have had the privilege of consultation or referred practice.

The specific trends in medical education during the last three decades are those that have occurred within the various departments and they will now be taken up serially.

Gross Anatomy. The teaching of gross anatomy has probably changed less than that of any other subject. The principal differences during these years of change have been to supply the student with more and better dissecting material and to have the work carried on under closer supervision than was formerly the case. The student must still dissect an entire lateral half of the body and there is no essential change in the method of carrying out this procedure. Included in the study of gross anatomy, of course, is the study of the bones and the course in osteology may or may not be given as a separate didactic course. It seems to be the practice of most schools to give a student a set of bones and make him responsible for the acquisition of knowledge concerning them. Cross-section and topographic anatomy are usually given in conjunction with the dissection of the body or may be taught during the following year. The purpose of the course in gross anatomy is to give the student a working knowledge of the structure of the human body and, as given at the present time in the intensive manner in which it is taught, such a working knowledge is satisfactorily obtained.

The anatomy of the nervous system has come to be taught as a separate course which is known as neuroanatomy and is given both as a gross and as a microscopic anatomic subject. Great strides in the acquisition of knowledge of the central nervous system and improvement in technic for the study of nerve tissues has made the course in neuroanatomy each year more and more effective.

Histology. Histology is still taught in the same way as heretofore, but here again newer technics have made possible the teach-

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ing of the subject in a more effective manner.

Embryology. The course in embryology likewise has improved as a result of more recent investigation and from year to year the acquisition of more knowledge in this subject makes the course more interesting and valuable to the student.

There has been a tendency in some instances to demonstrate to gross anatomy students certain practical procedures, such as lumbar punctures, thoracentesis, etc., in order to stimulate their interest in gross anatomy and to make them realize the practical value of the information they obtain during the dissection of the body. One hour a week for one-half quarter is devoted to this work, which is given by members of the clinical staff in the hospital.

Chemistry. In the teaching of chemistry during the last three decades the trend has been toward increasing the prerequisite training so that inorganic chemistry and qualitative and quantitative analyses have been dropped from the medical school curriculum and must be taken during the premedical training. This means that the time allotted to chemistry in the medical curriculum can now be devoted to the teaching of biologic and physical chemistry, most of the time and emphasis being placed on the former.

Many advances have been made in this field and as a result of the most recent investigation the practical value of the subject has increased from time to time. The trend in teaching chemistry will always be toward emphasizing the close interrelationship between chemistry and internal medicine.

Physiology. Physiology is a subject which has come into its own with the improvement in medical education of the last three decades. It has come to be a didactic and laboratory course of foremost importance in preparing the student for his later work in pharmacology, therapeutics and medicine.

Active researches in this field are continually adding newer information and the subject is enriched from year to year to the student's advantage.

Pharmacology and Materia Medica. In this instance it is perhaps necessary to admit that the trend may not have been in the right direction. Unfortunately for quite a long time experimental pharmacology was emphasized to the detriment of the proper teaching of materia medica and prescription writing. One does not doubt the value of the didactic and laboratory training in pharmacology, particularly the excellent demonstrations of the effect of drugs in living animals. Nevertheless, it is also necessary for the student to become familiar with the nature of each of the important drugs used in medicine and that he should learn how to prescribe drugs in an acceptable manner. The many discussions that occur from time to time concerning the teaching of these subjects is sufficient proof that all is not well in this particular field. As an example of this type of discussion I might quote the following item from the *Journal* of the American Medical Association of April 12, 1941, taken from the Proceedings of the Annual Congress on Medical Education and Licensure held in Chicago on February 17 and 18 of this year:

"What is Wrong with the Teaching of Materia Medica and Therapeutics in Medical Schools?"

Dr. Adam P. Leighton, Portland, Maine: "For twenty-six years I have been a member of the Maine Board of Registration of Medicine. We have given comprehensive, fair and practical examinations in all these years. The doctor of medicine who graduates today is a better man in theory at least than was he who graduated shortly after the turn of the century. I believe, however, that the present-day graduate lacks much of the practical knowledge that was ours, especially in the administration of drugs as therapeutic agencies. When I graduated, the men from my school could write a prescription correctly and in proper Latin form and we knew there was such a thing as a 'National Formulary and a U. S. Pharmacopeia.' That is more than I can say for the schools of today.

"Two years ago the Maine Medical Association and the Maine Pharmaceutical Association commenced the exchange of delegates to their respective annual meet-

ings. I think it is time the medical and pharmaceutical brethren met together for consideration of the many professional matters with which we are closely concerned. We can learn much that is mutually profitable by meeting regularly together. A druggist from Maine stated to me that a young doctor who recently located in his town came into his store and said 'I'll have to have your help! I really do not know how to write a prescription.' I knew the young man as a graduate of one of the leading medical schools.

"As secretary of our board I do not routinely take part in the actual examination of applicants. In the last five examinations given by the Maine Board, however, I have set the questions in materia medica and therapeutics. Fifteen out of the eighteen applicants who took the examination in November, 1940, did not attain the passing average. After its completion, several men came to my office and each one admitted that the examination was fair but he 'knew he hadn't passed it.' They stated it was about what they expected, for they were not being taught materia medica and therapeutics adequately in their schools. Certain members had complained to the dean of their institutions regarding the teaching, but to no avail.

"After giving them an additional oral examination, I realized that a few did have a fair comprehension of pharmacology and, with the promise that they would seek out some druggist or other suitable person and attempt to learn to write prescriptions, I passed nine of them. The other nine have to be re-examined, for their ratings were from 17 to 50 per cent. Do their teachers plan that they shall supplement their collegiate instruction by a post-graduate course given by detail men from pharmaceutical houses? The medical profession has 'put over' too many nostrums, 'patent medicines' and low grade proprietaries. I had occasion a few weeks ago to look over a druggist's prescription file of a week previous. I counted fifty-one so-called prescriptions before I came across one that was written correctly or scientifically and which called for official drugs and medicines in its compounding. The members of the medical profession have been shortsighted, because in later years they have been wont to cast aside their knowledge of materia medica.

"The medical student should be given a course of adequate instruction during his medical study which would guarantee that he was properly schooled in his materia medica before he attempts to obtain licensure."

Discussion

Dr. Chauncey D. Leake, of San Francisco, stated that medical schools now teach pharmacology but do not teach materia medica and provide no room in the curriculum for it. He admitted that if licensing boards required materia medica to be taught, it would have to be done, but he felt that other courses would suffer as a result. He also stated that pharmacologists preferred to omit the apothecary system and Latin.

Dr. Stephen Rushmore, of Boston, admitted that while the graduates of today are better prepared in some respects, they are not as well prepared in materia medica and drug therapy. He did not agree that the teaching of these subjects was wrong, but felt the field had grown so that the student might get lost in details. He agreed with Dr. Leighton and Dr. Leake that the physician should be skeptical of the claims of the detail men and should either prescribe well recognized drugs or know the exact formula of any preparation that he employed for therapeutic purposes.

Dr. Adam P. Leighton, Portland, Maine: "I hope that the time has come when we shall wake up to the fact that we are not pseudomedical practitioners. We are medical men, and if it has come to such a pass that the medical curriculum is so full of important things that materia medica and therapeusis and proper treatment, the giving of relief to our patients is to be cast aside, I say let's think it over. Let's get rid of some of the non-essentials. Let's stimulate our course in materia medica. Let's teach our boys to practice medicine, not to be pseudomedical practitioners."

The conclusion seems to be unescapable that there should be a trend toward the bet-

ter teaching of materia medica and prescription writing since it is quite evident that even the excellent courses given in pharmacology are not sufficient for supplying the student with the necessary information in these subjects.

Pathology. The teaching of pathology has been greatly improved in many respects during the last three decades. One of the principal reasons for this has been the large increase in full-time teaching staffs and in the improved quarters and equipment for teaching this subject. The number of autopsies has been greatly increased as a result of improved teaching of the subject and also as a result of the requirements of the regulating agencies which classify hospitals as "Approved" or "Unapproved." There is a marked contrast between the status described by Dr. Abraham Flexner in his survey of medical education in 1910 when he reported that in many medical schools the number of autopsies varied from zero to two in a year, and the present situation where autopsies are recorded in numbers of three figures.

The trend in teaching pathology has been toward the practical side and there is probably no other course in medicine that reveals to the student in a more practical manner the relationship between cause and effect in disease. The use of fresh surgical specimens and specimens of selected conditions preserved in ever growing numbers in the pathologic museum, as well as attendance upon autopsies, tend to give the student a wider grasp of this important subject.

No small part is played in the teaching of pathology by the Clinical Pathological Conference, which is held weekly and attended by teachers from various departments as well as by the senior class.

Clinical Pathology. This subject ranks high among those in which research has added much to the material and practical value of the course. Original investigations in this field during the last three decades have added many useful laboratory procedures to the medical curriculum and the medical student learns much of practical value in this course which will stand him in stead later on when he goes out on his own to practice up-to-date medicine. Even if he does not perform these various laboratory procedures himself he must be familiar with them in order to know what to expect from a laboratory technician, or it may be necessary for him to train a technician to carry out these various procedures for him.

It has been alleged that the use of the procedures of the clinical pathologist tend to make the physician rely too much on the laboratory and too little on his five senses. It seems that the answer to this objection would be that the physician should use the laboratory procedures if they are more accurate than the information he could obtain from his five senses and that he should use his special senses when the information he can thus obtain is more accurate than that supplied by the laboratory.

Bacteriology and Public Health. Bacteriology is another subject that is of fundamental value to the student of medicine and one that should be taught in full accordance with the accepted criteria for a course of this kind. The trend in teaching bacteriology has been toward a finer exactness in the method of cultivation, isolation and identification of bacteria with a special emphasis on bacteriologic technic.

The field of bacteriology is so large that it is possible to study only the commoner pathogenic bacteria and protozoa, but the didactic portion of the course supplements the actual study of the organisms themselves. This course also includes the teaching of serologic methods and it is well known that much progress has been made in this field in recent years.

In the teaching of public health the work is largely practical and is made up to a large extent of field trips, the study of school hygiene, health surveys, vital statistics, etc. The trend in the teaching of public health has been toward an emphasis on some particular branch of this work during each of the four years of the medical course. This has resulted in some instances of giving definite public health work in the first, third and fourth years, with the course in bacteriology and immunology taking the place of public health in the second year.

In addition to the preceding preclinical subjects there are also given during the first two years of medicine a course in physical diagnosis and a course in surgery, which may be called "Minor Surgery" or an "Introduction to Surgery," these courses being intended to bridge the gap between the preclinical and clinical years and to acquaint the student with the hospital atmosphere before he enters his third year. These courses are usually given in the third and fourth quarters of the sophomore year.

Clinical Subjects:

Medicine. In the teaching of medicine during the last three decades the trend has been toward an emphasis on bedside teaching as opposed to didactic courses in medicine. This means that a great deal of the teaching is done in the wards and in the out-patient department where the patients can be examined and diagnosis and treatment in each case carefully studied. In addition to the teaching of medicine in wards and out-patient department, other courses are usually included under this departmental heading, such as physical diagnosis and clinical pathology, which have already been mentioned, endocrinology, which is taught from the viewpoint of medicine, therapeutics and materia medica, applied therapeutics and medical jurisprudence.

Domiciliary medicine in the fourth year may or may not be included in the curriculum but in recent years this method of teaching has been the subject of a symposium at a meeting of the Association of American Medical Colleges. It is probable that domiciliary medicine will become more and more important as the value of this practical method of teaching medicine becomes better known.

The department of medicine will also usually include within its scope special clinics for syphilis, diabetes, heart diseases as well as elective medical seminars in electrocardiography or other subjects.

There has been a trend for neuropsychiatry, formerly a sub-department of medicine, to become a specialty on its own. As a result of the emphasis placed on this field of medical study the tendency has grown to spread out the teaching of neuropsychiatry over the four years of medicine. As a result the study of psychopathology has been introduced in some instances in the first year class, while much emphasis has been placed during the third and fourth years on the teaching of neurology and psychiatry from the practical viewpoint, with the senior class observing the clinical methods in hospitals for the insane as a part of their training in this subject.

There has also been a trend in recent years in the splitting off of tuberculosis and a coalescence of the various aspects of this disease under one teaching head. This is made necessary by the newer advances in the surgical treatment of tuberculosis, particularly the operative measures intended to immobilize the diseased lung.

As a result of this treatment greater emphasis has been placed upon the teaching of tuberculosis and the student is enabled to obtain a much more satisfactory grasp of the subject as a whole than when he gets merely a smattering from various departments that are not particularly concerned with tuberculosis.

In recent years there has been a great trend toward the teaching of medical history on a more serious basis than heretofore. As a result of this in some instances definite courses in the history of medicine have been added to include as many as three of the four years in medicine. Probably there will be no disagreement that this greater emphasis on the history of medicine is a step in the right direction.

Pediatrics. In the teaching of pediatrics during the last three decades great emphasis has been placed upon the principles of infant feeding. Much has been learned in recent years about this subject and the medical student of today enters the general practice of medicine better prepared in this respect than graduates of years gone by.

Pediatricians as a group appear to be among the most zealous of physicians and their enthusiasm is carried over to their students in the giving of their various courses in this field. The findings of research pediatricians have been added to the therapeutic armamentarium of the

graduate and, as a result of the fine work done by pediatricians as a whole, infant morbidity and infant mortality have been markedly decreased.

The teaching of pediatrics, like that of medicine, is extremely practical in nature, most of it being done in the wards and in the out-patient department.

Surgery. The day of the old surgical amphitheater, which lingers in the memories of the graduates of the horse and buggy days, is practically a thing of the past. It is realized now that students can learn very little by sitting by and watching others operate on patients more or less entirely surrounded by the surgeon and his assistants. The trend in teaching surgery has likewise been toward the practical side and the student who works up the surgical patient in the ward now follows the patient to the operating room and stands by or serves as a second assistant during the operation from a vantage point where he can see everything that goes on. He can also follow the postoperative course after the patient has returned to the ward.

While there is still a certain amount of didactic teaching in surgery the actual diagnosis and treatment are observed at the bedside in the hospital or in the out-patient department or emergency room.

Many improvements have been made in the teaching of anesthesiology and this subject has advanced in importance to such a point that there has been a tendency to create such department under a full-time head. At the meeting of the Medical Association of Georgia in Savannah, in April, 1940, a delegation from the Fulton County Medical Society memorialized the House of Delegates to request the medical schools in Georgia to install full-time departments of anesthesiology. Although the committee was not aware of the fact, this had already been done in one instance three years before.

In this connection it would be desirable to be able to say that there is a trend toward restricting the practice of anesthesia to graduates in medicine. Undoubtedly the giving of an anesthetic to a human being constitutes the practice of medicine, and it would in general be far better for the patient if all anesthetics could be administered by physicians especially trained in this specialty. Certainly this should be the case in all major operations.

The specialty of neurologic surgery under the stimulus of the late Dr. Harvey Cushing has made great advances in the last three decades and particularly in the last two. Because of the large number of serious automobile accidents in which injuries to the nervous system occur, the trend of teaching in this field has been to warn the student particularly about what should not be done to patients who have suffered such injuries, particularly fracture of the spinal column. Special emphasis is also given to the care of cranial trauma while the principles employed in the diagnosis of surgical conditions and their pathologic changes are also taught.

One of the trends in the teaching of dermatology and oncology has been to lay great stress on the need of early diagnosis of cancer and to make it clear to the student the necessity of obtaining the cooperation of the public in the matter of having periodic physical examinations.

Many improvements have been made in the practice and likewise in the teaching of orthopedics, urology, ophthalmology, otolaryngology, endoscopy, and roentgenology as well as in other specialties which might be named as sub-departments of medicine or surgery.

Obstetrics and Gynecology. The trend in the teaching of obstetrics and gynecology has been toward the practical side of this field with emphasis on conservatism in obstetrics. The newer advances in learning in both these fields have made the teaching of the subjects of greater practical value and in the gynecologic field the dysfunction of glands of internal secretion is shown to be of great import in many diseases of women.

There has been a trend also toward the teaching of the conservation of the health of mothers, particularly by the proper spacing of children. This requires that the student be taught the latest accepted methods of the practice of contraception as well

as the principles employed that determine whether a particular patient should or should not be given this information. Some states have adopted contraceptive instructions as part of their public health program and the trend seems to be toward a more general adoption of this idea. Certain it is that every medical school should give its students the best possible training in this field so that this practice can be carried on by the profession rather than by others who are not properly trained to advise and prescribe in such matters.

Experimental Medicine. The trend toward active investigative work in medical schools during the last three decades has been responsible more than anything else for the wonderful improvements in the various fields of medicine. Emphasis is placed in researches in the preclinical and clinical departments in all up-to-date medical schools. Some of these may have separate departments of experimental medicine while others diffuse the investigative work throughout the various departments of the school. The important thing is that the trend in medical education during the last three decades has been to emphasize the importance of original investigation in every department of every school.

The purpose of this paper has been to discuss the trends of medical education in Georgia in the undergraduate years. The trends in medical education after graduation will be discussed by the succeeding speaker on this program.

'SLIP OF THE TONGUE' AND MENTAL DISEASE NOT RELATED

"The answer to the question of why intelligent, well educated people misplace words would involve a long philosophic discussion of what are considered in the Freudian literature as 'slips of the tongue.'" *Hygeia, The Health Magazine*, states in a recent issue in answer to an inquiry as to whether such "slips" are a remote sign of insanity. "There are many different types of slips," *Hygeia* says, "some having rather obvious meanings, while others are obscure and little understood. Such 'slips' or the misplacement of words are common and bear no established relation to mental disease."

CARROTS RATE HIGH WITH NUTRITIONISTS

"Today's carrot," a bulletin of the United States Department of Agriculture says in a recent issue of *Hygeia, The Health Magazine*, "is about all any one could ask of one vegetable. It tastes good, it is fashionably streamlined, it is attractive in color and it rates high with the nutritionists. . . ."

GRADUATE MEDICAL EDUCATION

Russell H. Oppenheimer, M.D.
Emory University

The term, graduate medical education, refers of course to all educational procedures designed for those who have already received the degree of Doctor of Medicine.

In order to be sure that we are all thinking about the same thing it is advisable first to comment briefly on the objectives of graduate medical education. There are two main objectives: one is to provide education necessary for doctors to prepare themselves for the practice of one of the medical specialties and to assist them in continuing their education in their individual specialty. For purposes of clarification this has been given the name of graduate medical education. It compares with the graduate programs of other departments of a university, although it may be carried out in a hospital which is not affiliated with a medical school or with a university. In some instances graduate degrees are awarded doctors completing such courses. Their value has been increased during recent years because of their importance in securing certification by the several boards which have been set up to recognize those prepared for the practice of a medical specialty. Hospital residencies are examples of this type of graduate education.

The other main objective is to assist those in practice in what is now a difficult problem; that is, in maintaining contact with others in practice and finding means of stimulating doctors to keep abreast of the constant changes in the art and science of medicine. This is a problem faced by the physician whether he is in private practice in the rural communities, in the city, or even on the full-time faculty of a medical school. It is, therefore, one not related to any individual group. Programs to meet this objective have been designated postgraduate medical education. By their nature they are not intended to lead toward advanced degrees nor to preparation for

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the practice of a medical specialty. It is with this post-graduate medical education that we are today concerned.

If we turn our attention, then, to post-graduate medical education we see that it divides itself into two forms: that carried on within a hospital or medical school, and that arranged within the community in which the doctor practices. For clearness we may designate the first as intra-mural post-graduate education and the second as extra-mural post-graduate education. This definition is important because it brings out the observation that intra-mural education is solely the function of the institution in which such education is carried on, whether hospital or medical school. It is designed to meet objectives which are identical with those of the extra-mural forms. It has certain advantages found mainly in the facts that a greater amount of clinical material is available in the larger hospitals and that periods of instruction for the individual doctor may be more easily arranged. As an example, a doctor in practice wishing to know more about the use of sulfanilamide in pneumonia could arrange, at a time convenient to himself, to observe this procedure. Again, group courses can be arranged to meet any special need.

Extra-mural post-graduate education, on the other hand, may or may not be a function of a hospital or school. It may rightly be considered the function of any unit of organized medicine. The decision concerning who shall carry on this type of post-graduate medical education must be determined by conditions inherent in the community itself—in this instance, the State of Georgia.

I am inclined to feel that the title, "Trends in Medical Education, Graduate," is not a particularly apt one for this discussion. Although I have been a member of the Committee on Graduate Medical Education and therefore share responsibility, it seems to me that we have not given sufficient thought to post-graduate medical education to have created in this State what might be designated as a "trend." Maybe a trend is just beginning.

It would not be purposeful again to recite the story of extra-mural post-graduate medical education as it has taken place in Georgia. I believe the termination of such programs in itself is evidence that we were not working along correct lines. Since the last meeting of the Medical Association of Georgia your Committee on Graduate Medical Education, with the excellent assistance and stimulation of the President and Secretary, have carefully studied our past problems and attempted to determine the reason for our failure and for the success of programs elsewhere. If the conclusions of the Committee may be termed a "trend," it can be expressed as follows:

(1) Post-graduate medical education (extra-mural) should be an activity carried out under the direction of the State Medical Association. This means that the officers, committees, and members of the Medical Association of Georgia will have the responsibility for organizing programs of post-graduate education and providing the interest and cooperation necessary for their success. The important point in this conclusion is that in this way every member of the Association will feel that he has a part in the programs and that they are not something being done for him by somebody else.

(2) Reasoning along the same line of thought, the Committee feels that it would be advisable at the outset of the new regime to defray the expenses of post-graduate programs from the funds of the Association. If programs carried out in this way are so successful as to make it difficult for the Association to finance enough of them, consideration can then be given to the possibility of securing assistance elsewhere.

(3) The Committee feels that the success of a program in any community will depend first upon creating a demand for it in that community; that is to say, it is something the medical profession in a community strongly desires. Two things are necessary for the cultivation of such a desire. One is programs which are so good that the profession feel they lose by not having them. The other is that the work be carried on in such a way as to be entirely

agreeable to the profession in the community and to increase their prestige with the clientele they serve.

(4) The Committee feels that the instructors should, for the most part, be men from outside the State of Georgia who would come to any community as guests of the profession and, as such, to learn themselves as much as they serve in the capacity of instructor.

(5) Post-graduate medical education is comparable to undergraduate medical education in one respect: in both, the most valuable educational experience comes from an intimate discussion of patients and problems at the bedside of the patient or in the conference room. In these there is an exchange of impressions and viewpoints in which the instructor takes part as one of the group of physicians. Such conferences carried on over a period of two weeks make it possible to study and to re-study the individual patient, to approach and to re-approach individual and general problems. When it is all over every one will say: "We had a splendid time talking to each other." And the instructors will join them in saying: "I learned a great deal and hope we may have the opportunity of talking again in the future." If you ask, does this plan eliminate the lecture? the answer assuredly is, largely. Possibly a few brief talks may be included in order to set the background for some of the discussions. It would be better, however, to allow such talks to come into the program as the progress of the conferences suggests their serviceability.

Post-graduate medical education, conducted along these lines, has been successful in other states. Your Committee feels that it will be successful here. As the President of the United States has repeatedly stated: "You can find out only by trying." As an experiment, two such programs were arranged to take place before the present meeting of the Medical Association of Georgia. You will probably receive a report this week. I hope it will indicate that we have found a trend which we may follow from now on, extending it and modifying it as circumstances may suggest and as finances permit.

Discussion on Papers by Doctors Kelly and Oppenheimer

Dr. W. F. Reavis (Waycross): It is a real pleasure to sit and listen to the discussions of Drs. Kelly and Oppenheimer. I think the members of the medical profession have realized the grave and necessary importance of getting more physicians in the rural sections. I think those of us who are practicing medicine in the rural sections are realizing that it is an acute necessity and that the effort made to stimulate the men going back to these sections was not altogether a layman's idea, but was brought to laymen by a group of medical men.

In premedical education we can always take into consideration the financial side of all these questions; not only that but the time limit in it. I feel as Dr. Kelly feels that a premedical education is very necessary. I think that we have got to one trend of thought in practically all of our schools. I happen to be a member of a Board of Education and I listen to the teachers and the situation existing in Georgia. In all educational work in Georgia today the children are not overworked. We have cut down on time periods. I don't think many boys in college are overworked; I think that is an exaggeration. I think if we cut down on the time it will allow the parents of Georgia to send more boys to medical schools if we can give facilities for teaching in the schools. I am glad Dr. Kelly brought up the thought of materia medica and therapeutics.

Another question that needs increasing in medical schools is adequate teaching of correct diets to the people of Georgia.

Dr. Kelly touched on the subject of active practitioners doing teaching. I think this is a very important subject. It is especially necessary to have active men do a considerable amount of teaching in the third and fourth years, particularly the fourth year, because it does give to these boys the practical side of life.

In Dr. Kelly's work I am going to go a little further than he did. Fortunately, I am one of the members of the Committee on Post-Graduate Study and helped to carry on and observe the first clinic given in Waycross. We learned a lot we didn't know with that effort. We were able to offer suggestions to Dougherty County in their effort. The time limit in both of those seminars was too short. We didn't have time in supplying physicians over the country with enough information to arouse their interest as much as it should have been. We started out with a very small local attendance the first day: there were 19 men at the first seminar. The next day was combined with the Eighth District Society in which we let the men know a little more about what we were attempting to do. As the seminar progressed interest progressed. We feel that if this program was repeated in Ware County either this fall or next year, with the same type of men we had down there, we would have the interest of all the men there. It is true that in our county we have lost a number of young men to the

Army. It makes a difference in our medical meetings. I think we notice it in the attendance at the State meeting, that it will not be what it was before. The men are in service and the men at home are not able to leave the communities without active workers.

Now, in one particular phase of our work we took more or less of a gamble and made an experiment as to the work. We didn't have the whole system worked out as it should have been. We undertook in our clinic to have a morning session in which we would have clinical cases discussed and consultation with the physicians around and we put out information that all the patients brought in would have to have well written histories and be accompanied by physicians. Right there we made a mistake. When we said well written histories we drove them all off. Tell the boys in the other parts of the state please not to make the mistake we did, because that absolutely ran them all off.

Dr. Grady N. Coker (Canton): I have enjoyed very much hearing Drs. Kelly and Oppenheimer, deans of our two medical schools, read their papers this morning on graduate and post-graduate instruction. I am frank to admit that we haven't very much to add to the undergraduate course of instruction except perhaps this: Go ahead and include in the course a good short course in business and hospital administration and I think we will just about complete the instruction, and it will aid all in their start to practice medicine.

I think the main thing we are concerned with today in either undergraduate or graduate medical instruction is "What does Mr. Public think about our present system of training doctors?" Are we making doctors out of nurses and taking medical students and making college professors out of them? I am frank to say I don't know how to remedy the situation and I don't think anybody else does, but I think if we don't clean house in the medical profession along that line the public is going to help us; there is a trend now among the people to regulate the distribution of medical care.

The layman is not particularly interested in the amount of training the present-day medical student has; he doesn't know the large responsibility and the things that he has to learn. What he is concerned about is who he can have when he is sick, or who can hold his hand and at the same time pat the baby on the back when it is born. That is the main thing we should be concerned about.

In regard to graduate medicine, Dr. Oppenheimer has given us some good food for thought. There are a lot of different opinions about that. Personally, I think one of the best things we have is the Southeastern Surgical Conference, where we have case reports and patients to present and have round-table conferences. I think all the physicians who attend those clinics get more out of that than they do lectures and things like that. I was in South Carolina last month and attended their state meeting. I find the same trend there in their House of Delegates.

We, as doctors, have carried this thing a little too far in regard to scientific training and we have lost sight of distribution in carrying it back to the people who make it possible for us to give those medical students training. I think that is one of the main things that confronts us from now on: practicability and distribution of our doctors to the large rural areas that we serve in this state.

Dr. Francis P. Parker (Emory University): I want to say just a word or two about the present-day teaching of pathology in which I have been engaged for the past ten years. There is a definite tendency to make the subjects, particularly of the first two years of medical school, more practical, and with that in view, pathology departments about the country have been getting away from the so-called "dead house" school which originated in Vienna under Virchow and has been the general mode of thought in this country for many years. This means that if we are to get away from the dead house, pathologists must go to the patients. A man cannot make his subject interesting unless he knows something about it. For that reason, a pathologist who does not go to the bedside is derelict in his duties.

Dr. A. D. Little (Thomasville, Ga.): I think as a Master of Pharmacy I have a right to say something about teaching pharmacology in the medical schools. This subject has been neglected by medical schools for years. We think that compatibility of drugs is much more important than Latin terminology. However, this is only one of the glaring things in modern medical teaching; it sticks out like a sore thumb. We are afraid that the whole trend of present-day medical training is toward the ultra-scientific and away from the practical. We think this because we have to deal with interns and residents. Someone asked us if our hospital was a teaching institution. We said, "Yes, the interns we get try to teach the staff." And they are so ultra-scientific and at the same time so impracticable that if we depended upon their diagnoses we would be in a bad fix.

We think, too, that as practical surgeons, we are going a little bit too far in our requirements of post-graduate training. As it is now, a man is going to be old before he ever gets to practice at all. The long training seems to kill initiative and produce inferiority complexes, and this latter we believe is largely due to the fact that medical colleges are trying to teach medical science through fear rather than creating a love for the subjects which are being taught. We enjoyed every minute of our medical education, but I have talked to freshmen, sophomores, juniors and seniors in medical schools all over the country in recent years and find that they are scared to death. They are afraid they are not going to pass the examinations and thus be deprived of the vocation for which they have spent several years in premedical preparation and to which they have dedicated their lives.

Dr. H. D. Allen, Jr. (Milledgeville): We should not let pass one thing that Dr. Kelly brought out in his paper; that is, the need for a little more stress on the humanities in premedical education. There is, however, very little that we can do about this as Greek has disappeared completely from the high schools and Latin

has been reduced to two years at the most. This I know to be true, at least in most of the smaller towns of our State, and teachers of these subjects are becoming even more scarce than the pupils to study these subjects. In a preparatory school with over three hundred boys in the high school department, my son is in a class of seven taking Latin.

Knowing Dr. Kelly as preeminently a semantologist and having studied anatomy in the same class with him, I used to marvel at the ease with which he could learn this subject and we came along at that critical period when a student had to learn both the old and the new treminology. Our professor was essentially a slave-driving quizmaster and I am sure Dr. Kelly and I both had the feeling that the sole purpose of anatomy was to test our fitness to become physicians or surgeons, rather than a practical aid in the study of medicine. Anatomy was first and foremost a rack to try the hippocratic neophyte.

Changing to another medical school at the end of the second year, I came in contact with a group of students who had studied under an eminent research anatomist. Tradition had it that this old professor completely dissected an elephant and was an authority on the lymphatics of the cockroach. His students certainly had a more usable knowledge of anatomy than anything I had learned and I believe my deficiencies were shared by the other members of the class that studied anatomy at the same time I did.

I have always resented that what little anatomy I learned I had to dig it out for quizzes, rather than having been taught, but when it comes to post-graduate education, I find my own attitude a complete paradox, preferring to dig things out for myself rather than be taught. I am frank to admit that much of the post-graduate work that has been brought to the rural districts has been frankly boring to me and would have been to others had the attendance been larger. I remember one mid-summer series of meetings that was held in my home community. One speaker, an eminent authority in his line, came several hundred miles with moving picture equipment and an excellent paper and aside from the three local physicians who helped welcome him to the community, there was one other physician in attendance from the district that this seminar was to serve. In expressing my appreciation to this one physician for having come, he very quickly explained that his daughter, who was attending the local college, was sick and he came down principally to see her.

With the county, district and state medical meetings, I certainly feel that there is room on our program for purely instructive papers and that there should be refresher courses in our medical colleges and larger clinics. These can be taken or left as one sees fit, but after a physician has been duly licensed to practice medicine, I do not believe that we get very far in taking education to him.

In closing I would like to express my appreciation to the Program Committee for having these two papers brought before us and to also express my gratitude to Drs. Kelly and Oppenheimer for their excellent presentation of the subject of education.

Dr. H. M. Moore (Thomasville): Dr. Coker has gotten the medical student up to middle age and Dr. Little has gotten him to be an old man. I am very much in favor of the theory of medicine but I think when treating a disease, we want to remember the patient. Dr. Little and Dr. Coker brought out indirectly when we are getting quality we are forgetting quantity. We need both. We are importing into Georgia 25 per cent of our doctors every year and yet our medical body is decreasing. We have plenty of applicants to colleges and we have plenty of brains. We have 21 doctors in Thomasville. Seven were imported from out of Georgia. Of the remaining 14, seven graduated in a Georgia college. That is something to think of. The average age in the county is 59. Only one young doctor has located in Thomas County outside of Thomasville in twenty-five years. He was imported from Brooklyn. If we don't have more doctors graduate, we are going to have too few. We are going to have state medicine before we want it. People are going to demand something. I am in favor of high standards but I think we should have a larger number of doctors graduating and maintain the standard. We have a demand now, I think, for some 4,500 or 5,000 medical men in the Army. There will be a demand for 40,000 in the near future. We take two doctors here and four there from the small towns, and the older men can't work 16 hours a day, and we are facing something that we will have to do something about. The small towns and communities are now suffering for the want of doctors—not enough young men to take the place of the older men.

Dr. B. T. Beasley (Atlanta): We have some visitors here from other states, one of whom is interested in post-graduate work. I should like for us to extend the courtesy of the floor to Dr. F. J. Waas, Jacksonville, Florida.

Dr. F. J. Waas (Jacksonville): I don't know why Dr. Beasley should have selected me to talk on this subject but I am very markedly and deeply interested in it and I have certainly gotten a great deal out of it. This is one feature of the practice of medicine that appeals to some of us, I know, from the reaction brought out this morning. It is the rural community that suffers. It wouldn't surprise some of us, I am sure, if some of the recommendations of Dr. Charles and Dr. Will Mayo were put into effect. I think we will have to train some of the men in rural practice of medicine, not exactly as extensively as the requirement promulgated, but train them along the lines of recognizing conditions that come up and refer them to proper places for their handling.

Dr. G. Lombard Kelly (Augusta): I am very glad that these two papers have aroused so much discussion but I should not like to prolong it unduly because the time is about up. I should like to say this, however; that I should like to see a trend toward a greater expen-

diture of money for medical education in Georgia, both for endowed institutions and for state-supported institutions. This certainly should be done and I am certain that it would greatly augment the benefits of all concerned. In the recent Legislature a Senator came down with influenza and, unable to get a physician, he became very much incensed about it and went up to Atlanta and introduced a bill to permit students to enter medical school with a high school diploma, provided they were twenty years of age. He overlooked the fact that most students graduate from high school at sixteen or seventeen years and it would be around three years before they could enter medical school and would waste a great deal of valuable time. It was also pointed out to this gentleman that most applicants have three or four years of college work at the average age of twenty. I think twenty-four or twenty-five is young enough for a young man or woman to graduate in medicine and most people do not want doctors practicing on them until they are twenty-eight or tweny-nine years of age.

Another thing is the importance of the humanities, and I dislike to harp on this subject, but I must continue to insist on the value of Latin and Greek. Although they were advised to do so, not one of the applicants this year had studied Greek. Most of them had studied Latin in high school but not in college. It doesn't make any difference to them whether the plural of diverticulum is diverticu*li or* diverticu*la* or whether there is a diverticulum in the *abdómen* rather than in the *ábdomen*. They are not concerned.

A doctor may have good judgment and good technic, but to the listeners, it is important at a medical meeting for a lecturer to be qualified to speak good English and give evidence of his own training along the lines of the humanities. I should like to emphasize this as one of the greatest needs in our preliminary education in preparing students for the study of medicine. The better prepared they are and the better cultural background they have, the better impression they make on the public and, of course, this means a better attitude of all toward the medical profession generally.

Dr. Russell H. Oppenheimer (Emory University): I have two comments to make, the first concerns the question of humanities in college preparation of the man planning to enter medical school. At the last meeting of the Association of American Medical Colleges it was voted that the scientific requirement for entering medical schools should be kept at a minimum and all other hours in college be devoted to the humanities or cultural subjects. The thought is that a man is more able to take his place in the community if he has had some education in such things as history, Greek, Latin, economics, sociology and similar subjects.

Secondly, I would like to remind you that, after all, the medical schools are yours and that you have not only the privilege but the responsibility of taking part in the direction not only of trends but actual practices within them. I believe it would be a very valuable thing at another meeting of this Association to spend somewhat more than the minimum time on discussion of medical education. The dean's job in a medical school is largely to listen and take suggestions which are brought to him and attempt to work them out. I once received an interesting suggestion from a young man in practice who thought it would be a good idea if someone out in the field came in and talked to students on how medicine is practiced. I haven't done that yet but this coming year I hope to pick out several men in practice and ask them to tell students exactly how they apply the things they are using. I refer particularly to rural communities where doctors do not have all the things in the hospital to work with, the facilities to which Dr. Little refers.

MEDICAL PREPAREDNESS

JAMES E. BAYLIS, *Colonel*
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Atlanta

Manifestly it would be impossible to discuss all of the features of Medical Preparedness in the short time at my disposal. The most important requirement in Medical Preparedness is to make available medical officers to accomplish the physical examination incident to the selection of the physically fit for military service; to maintain them in good physical condition once they are accepted for the service by the application of modern principles of sanitation and preventive medicine; to remove the sick and wounded from the battlefield; and to care for the disabled while in hospital.

My discussion will be confined essentially to the requirements of medical officers to accomplish this task, and the problem in securing them. This phase of Medical Preparedness should be of most interest to you at this time and it is the one which is giving us most concern. The problem of providing adequate medical service for the Army is one for solution by the medical profession as a whole. It is one which requires the coordinated effort of those of you who are civilian practitioners and those of us who are affiliated with the military service. In this respect the Medical Officers of the Regular Army who have chosen the military service as a lifetime vocation are the representatives or specialists of the medical profession in medico-military matters.

The responsibility for Medical Preparedness in its final analysis rests squarely on

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the shoulders of the 155,000 physicians in the United States engaged in the active practice of medicine. The medical profession has always voluntarily accepted and met this responsibility and there is every indication it will do so again once the rank and file of the profession fully realize the urgency of the situation.

In the very beginning of the present emergency the medical profession offered fullest cooperation through the Preparedness Committees of the American Medical Association and the State Preparedness Committees. These committees have done a tremendous amount of work in accumulating valuable information as to the availability and qualifications of the doctors of the country. This is very useful now and will be more so in the future. Some very important contributions have been made by members of the profession who are recognized as leading authorities in the various specialties, working as members of committees of the National Research Council, in making available up-to-date information in methods of treatment.

One of the earliest and most important direct contributions to National Defense has been the work of the thousands of civilian practitioners throughout the country who are serving as members of the local and advisory Selection Boards, as a patriotic duty to country, without any remuneration whatever. They truly constitute the front line of the medical profession in the present emergency.

Much has already been accomplished and full credit should be given for this, but frankly, that is not enough. Every member of the medical profession must become Preparedness conscious and contribute in some tangible way toward Medical Preparedness. There remains much to be done before the medical profession can say they are making an all-out effort in the interest of Preparedness. There is still quite a shortage in medical officers required to adequately meet the situation in this Corps Area, in qualified specialists and in the total requirements.

What does Medical Preparedness mean in terms of the number of doctors required? Under the present Selective Training and Service program there will be in the military service by June 30, this year, approximately 1,400,000 men. To provide adequate medical service for this military force there will be required about 10,000 doctors (7 per thousand, or 0.7 per cent of the troop strength). Of this number over 8,000 must be furnished from the medical profession at large. This is not a very large percentage of the practicing physicians, only 5½ per cent. What is the number required to meet the needs of the Fourth Corps Area? There will be under training in this Corps Area by June 30, about 450,000 men and there will be required approximately 3,000 medical officers.

What is the nature of the service for which these officers are required? Their duties may be divided into two categories—those required for tactical medical units which accompany and render service to the fighting troops in camp, on the march, and on the field of battle, and those engaged in the care of the sick in hospitals. The proportion of medical officers required for each of these categories is about the same.

Medical officers assigned to medical units which accompany the troops in the field must be given a great deal of training along medico-military lines before they are qualified for field service. In general, this is a duty which requires red-blooded young doctors with initiative and ingenuity and who are in the pink of physical condition. It is only logical that most of our Medical Reserve Officers Training Corps graduates and those who have already received military training as Reserve Officers should be assigned to these units. This group of our medical officers spend most of their time in being trained, and in training others for field service. Their professional work consists essentially in treating ambulant patients. The fact that half of the number of medical officers is required for this purpose is one reason why so many medical officers are needed in the present limited emergency. The duty required of those officers assigned to hospitals is essentially professional in nature and therefore requires a minimum of military training.

What is the scope and magnitude of the problem of furnishing adequate medical service for the military forces? Every military organization larger than a company has as an integral part thereof medical personnel: officers and enlisted men. In time of war, medical service must be available to troops on the firing line and in every echelon all the way back to and including all installations in home territory. There is no other branch of the military service whose functions require a distribution of its personnel to every echelon and every separate organization larger than a company.

Some idea of the magnitude of the administrative as well as the professional problem may be obtained when it is realized that in a maximum effort in a field of operations there may be under the control of the Medical Department as many as one-fourth of the entire command, composed of 13 per cent patients and 12 per cent Medical Department personnel required for the care and evacuation of the sick and injured.

In the present training program in home territory where conditions are favorable there are required hospital beds equal to 5 per cent of the strength of the troops and the personnel and equipment necessary to care for this number. As a matter of fact, there were many instances in this Corps Area during the past winter in which the number of patients in hospital was as high as seven to ten per cent of the local troop strength. On the basis of 5 per cent beds, this means that for the Fourth Corps Area, in which there will be 450,000 troops by June 30th, there will be required approximately 23,000 hospital beds distributed in hospitals varying in capacity from 10 beds to 2,000 beds, and requiring a total of approximately 1,500 medical officers, 3,000 nurses, and 11,000 enlisted men to operate them. To this number of officers engaged in the care of the sick in hospital, there must be provided an equal number in training and to assist in the training of other Medical Department personnel for field service.

In the assignment of medical officers, every consideration is given to their special qualifications, in an effort to get the greatest return from their service. It is manifestly impossible to comply with the desires of every officer. There are many important duties which are not strictly professional, and many medical officers want to do only professional work. Furnishing field medical service for the troops on the march and on the battlefield is a most important function of the Medical Department and adequate personnel must be assigned and trained for this duty. It is the intention, however, to assign outstanding professional specialists to professional duties so as to take full advantage of their special knowledge. Sometimes, due to lack of detailed information, mistakes occur in assignment, but these errors are corrected wherever practicable and to the best interests of the service.

Although the work required of half the medical officers who are assigned to duty in hospitals is almost purely professional in nature, here, too, we expect to take full advantage of every opportunity to continue the professional training of young doctors. Up to the present time we have been so busily occupied with the serious and difficult problem of supplying the minimum number of medical officers needed that we have not been able to attend to some of the refinements. We are taking steps now to insure that the various professional services in the large hospitals are in charge of medical officers of outstanding professional qualifications. The objective is to have the professional work in all of our large hospitals supervised by men of outstanding qualifications so that the various national specialists' organizations will give full credit toward meeting membership requirements for service under their supervision. In other words, it is planned to make the year of military service in an Army hospital comparable in every respect to a year of post-graduate hospital work.

In the procurement of medical officers it is not contemplated that the Fourth Corps Area, composed of the states of North Carolina, South Carolina, Tennessee, Georgia, Alabama, Mississippi, Louisiana, and Florida, will be required to furnish all of the 3,000 medical officers required for the

troops in training in the Fourth Corps Area. This Corps Area is only called upon to furnish for active duty the same proportion of Medical Reserve Officers as is furnished by other Corps Areas.

There are 1,300 Medical Reserve Officers in the Fourth Corps Area. Seven hundred fifty (56 per cent) of these are now on active duty, and this soon will be increased to about 75 per cent. The State of Georgia has about 2,800 doctors, 248 of whom are in the Medical Reserve Corps. One hundred and twenty-five (50 per cent) of this number have already been ordered to active duty, and this soon will also be increased. This represents only 4½ per cent of the total number of physicians in the State of Georgia. In other words, only about one doctor in twenty in the State of Georgia is now in the military service. This does not represent a very large percentage of the total and if the load were distributed equally in accordance with the doctor population it would not disrupt the medical service of any institution nor deprive any community of adequate medical attention.

Unfortunately, however, a large percentage of these Medical Reserve Officers are located in small towns and cannot be spared for military service without depriving the civil population of medical attention. The cities could well spare many more doctors than are now in the service and still have adequate medical attention for the civilian population.

It has been the intent of the War Department and of the Fourth Corps Area in granting deferments to give every consideration possible to essential teachers at medical schools; to those engaged in necessary local, county, and state health activities; to the needs of civilian hospitals; and to the needs of the civil population in sparsely settled communities. It is believed, however, all will agree that adequate medical service must be provided for our troops in training.

The only doctors who are available for call to active duty in the military service are those who are affiliated with it in the capacity of Medical Reserve Officers. Doctors must first voluntarily apply for and obtain a Reserve commission in order to be available to the Army. Doctors who are inducted into the service as a result of the draft may be commissioned in the Medical Corps but it will take about three months before appointment can be completed.

It is going to be even more difficult to continue to supply the need for doctors for military service. In order to maintain an adequate number of medical officers, if the training program continues to have in training 1,400,000 men, it is estimated there will be required four to five thousand new medical officers each year. This is based on the assumption that half of those in the service will extend for an additional year. The logical place to obtain most of these replacements is from young doctors just completing their year of internship. By volunteering their services at that time they will not have gone to the trouble and expense of establishing themselves in practice. Since there are only approximately 5,000 medical students graduating each year, and many of these will not be able to meet the physical requirements for military service, the needs of the present training program will require practically every physically fit young doctor as soon as he has completed his intern year. If the program is expanded, the problem of securing an adequate number of officers becomes more serious. A major effort would require between 30,000 and 40,000 doctors, about 25 per cent of the total number of practicing physicians. Recently the Selective Service has indicated their appreciation of this fact by issuing instructions strongly suggesting the deferment of all medical students by local boards. This should at least insure the continuation of the output in doctors equal to that at present. More than that will be needed if the emergency continues and the number under training increases.

In conclusion let me repeat, the problem of procuring an adequate number of medical officers is going to become more and more acute. We are not technically at war and much of the psychologic appeal that stimulates men to action in times of war is absent. The medical profession is fac-

ing one of the severest tests in its history. Military service is, generally speaking, a young man's game. There are many thousands of young doctors within the draft age, especially in the cities, who can be spared without seriously interrupting essential medical instruction, hospital service, public health activities, or medical attention for the civil population. There is required an all-out effort on the part of the medical profession. The finger of the medical profession and Uncle Sam is pointed at all who are within the draft age appealing to them to step forward and uphold the reputation of the medical profession in voluntarily meeting its obligation to country.

SO THAT IS ALLERGY

M. A. EHRLICH, M.D.
Bainbridge

In the beginning let me explain that you may not be acquainted with the term allergy but you have been seeing and treating allergic manifestations throughout your medical career and at times you have been using the same methods of treatment that are used in allergy.

Although modern medicine has made phenomenal progress during the last twenty-five years, and the general practitioner has found it impossible to keep up with the new developments in every branch, there is no field of medicine that has made more advancements than that of the study of allergy. The indications, also, are that progress in this field will be even greater during the coming years. Every physician, no matter what his specialty or interests, should familiarize himself with the principles of allergy, because the subject is assuming an increasing proportion of the field of medicine.

With the enormous amount of space given to allergy by articles in magazines and the syndicated press it can almost be said that the laity understands more about allergy than does the average practitioner of medicine. The latter is not wholly to blame, as he has had his hands full making a living in these trying times and keeping up with the development in those things of which he knows something or can use in his every day practice. As a result he has not given sufficient thought to the possibilities of allergy, or not having witnessed the results obtained in a series of cases treated by this method he is still unconvinced as to its real value.

From the standpoint of what we were taught when we attended our medical colleges, it is extremely difficult for us to understand why the theory of allergy should hold out hopes of benefit to anyone. It is hard for us to grasp the idea that the inhalation of minute pollen granules may cause a person to have hay fever; that bronchial asthma may be caused by being around a horse; that eczema may be caused by eating eggs; that epilepsy may be caused by drinking milk; or that migraine may be caused by face powder. It is hard for us to appreciate that these common every day things should cause anyone to have trouble. Yet every one of us knows something about allergy from our every day practice. Whether we realize that certain reactions that we have witnessed repeatedly comes within the category of allergy is an entirely different thing.

We were taught "idiosyncrasy" in our medical colleges. We now use the term "allergy." We were taught and we have often seen patients who would develop urticaria, nausea, vomiting, or dilated pupils after taking quinine. We were taught that a second dose of diphtheria antitoxin may cause death without our being told the reason, and we may have had such an awful experience in practice.

We have often been told that a child will vomit every time he takes milk, or that tomatoes will upset his bowels, or that certain foods will constipate. Yes, we have seen these occurrences often in our every day practice. Yet it is hard for us to realize that this is what is meant by allergy.

Our patients tell us that they have a tight feeling in the chest, sneeze repeatedly, or have shortness of breath when they sweep a room. Allergists tell us that this is caused

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by the patient being sensitive or allergic to house dust.

Our patients tell us that by eating oranges, sea food, strawberries, or other foods they will develop a skin eruption that almost "itches them to death." We cannot seem to believe these simple deductions and observations of our patients. Yes, the patients are correct. They are allergic to these foods and the reactions in these cases we designate urticaria or angioneurotic edema.

Our patients tell us that they develop sneezing spells, shortness of breath, cough, rattling in the chest, wheezing spells, or even say "asthma" when they get around a dog, cat, or horse. The allergists say that these patients are correct. They are sensitive to these substances.

Our patients tell us that they cannot sleep next to a woolen blanket or that their skin itches when they wear woolens. Again the patients are correct. They are allergic.

We have seen quinine react abnormally in certain individuals. We have seen it cause urticaria, nausea, vomiting, headaches, dilated pupils, and temporary blindness. We have seen these same reactions follow the administration of aspirin and other salicylates. Quinine and salicylate amblyopia may even cause permanent blindness. Have we thought of this as allergy?

We have seen patients who cannot tolerate certain drugs for one reason or another. Yet we have not associated this with allergy.

Our patients will tell us that certain easily digested foods always give them indigestion or heartburn. We may have had the same experience with things that we have eaten. Still we do not think of allergy.

From time to time we have advised the weaning of a breast-fed baby because the mother's milk does not agree. We have not considered that this child is allergic to some food that the mother is eating and that it is secreted into the milk.

We have treated diarrheas in bottle-fed babies by using mother's milk, goat's milk, condensed milk, evaporated milk, dried milk, or other milk preparations. We have even instructed the omission of milk by feeding only solid foods in some cases. We have seen each of these procedures work in some cases and fail in others. Yet we have not associated it with milk allergy.

We have treated poison oak and poison ivy and know that the eruption is caused by contact with these plants. We know that certain people are susceptible to it and that others cannot develop the eruption even if they handled the plant. We have even used the diagnosis "plant poison" knowing that it may be caused by other plants not of the rhus family. We have never thought of this as being allergic. In allergy this is called contact dermatitis and it is known that contact dermatitis may follow contact with plants, cosmetics, fruits, chemicals, and many other things. Yes, we have even advised the changing of cosmetics or soaps in skin eruptions of the face.

We know that adhesive plaster will blister some people. They are allergic to some ingredient of the plaster.

We have seen delayed healing follow the use of catgut when there has been no infection present. Except for allergy no plausible explanation has ever been advanced.

We have told mothers whose babies have eczema that the child will become well as soon as it is weaned, or more frequently as soon as they are no longer taking the bottle. What we do not realize is that milk allergy is the cause of many cases of infantile eczema and that as soon as the milk is reduced to a certain toleration the eczema will clear up.

For years we have instructed our asthma patients to go to the seashore or to the mountains for relief. What we have not realized is that the good results that have been obtained are a result of a change of environment, especially the avoidance of house dust, animals, or the change of diet.

We have given the same instructions to our hayfever patients not realizing that we have in this way removed them from contact with the pollens to which they are allergic.

We are all acquainted with different drug eruptions, dermatitis medicamentosa, and know that the treatment is to withdraw the

drug. We have not realized that this is an allergic reaction.

We have had mothers tell us that their children have night terrors every time they eat certain foods. Here again we have not associated it with allergy.

We have been told that bed-wetting occurs in some children only when they eat certain foods. We have not realized that in these cases the children are allergic to the food.

Some people tell us that certain foods will cause either an increase or a decrease of urination. This is the allergic response of the individual.

Some of our patients have found out that they have abdominal cramps, or cramps simulating appendicitis, gallbladder, or kidney stone when they eat certain foods. Yes, they are allergic to these foods.

Our patients have been taught from personal experiences many things about the abnormal reactions of foods, inhalants, and contacts which we as physicians are unable to believe because we cannot understand. Many of these things can easily be explained from a standpoint of allergy.

We have heard so much about pollens causing hayfever that we have come to believe that it can occur in isolated cases. What we do not realize is that it does occur regularly.

There are other allergic cases that we may go so far as to admit: 1. That it may occur. 2. That it did occur in the mentioned case. 3. That the patient or the allergist had a lucky break, as it was going to get better anyway. 4. That it may occur for patients of others, but cannot possibly do so for our own patients.

If we have read a number of articles concerning allergy we may believe: 1. That allergy is a fad and that it will soon wear out and be forgotten. 2. That it is a racket and rackets never last. 3. That it is either too simple or too complicated to believe. 4. That it is unbelievable, tommy-rot, or hokum that these things could happen. 5. That it does not make sense.

Allergy is not a fad, it is growing daily. Special courses are devoted to it in our modern medical colleges. It is not a racket, the margin of profit in this field is entirely too small to be a racket. It is neither too simple or too complicated to believe, in some respects it is quite similar to the germ theory, and all of us believe that. It is not unbelievable, tommy-rot, or hokum, it is based upon sound scientific principles that can be easily demonstrated. It does make sense, we have practiced allergy in some respects all of our lives; by treating allergic cases by allergic methods, only we did not consider it allergy.

Allergy is an altered reaction of the body cells. A reaction that is different from normal.

This reaction may occur in any part of the body, or in any of the different cells of the body. Consequently the abnormal reaction of the skin will be different from that of the lungs, or the intestines, or the nasal mucosa, or the brain, or the nerves, or any other tissue cell. Fundamentally the reaction may be edema or anemia. The reaction may be and usually is different in different types of cells of the same organ. The reaction may be different at different times, or several reactions may be present at the same time depending on the location or the type of cells affected. As allergy is an abnormal reaction, it would also depend upon what would be considered a normal reaction.

Allergic reactions may be caused by: 1. Anything that may be taken into the intestinal tract, by mouth or rectum, whether it is food, drink, or medicine. 2. Inhalation. 3. Contact. 4. Injection, whether intravenous, lavage, gavage, subcutaneous, intracutaneous, intra-abdominal, or intraspinal.

It is true that sensitization occurs more often from common everyday contacts but it may occur from rare contacts. This is the reason why reported odd cases appear so strange to us. This is the reason why all testing should be thorough. In other words one can never test for too many things. More often it is too few, and some of the causes are not found and consequently the treatment does not embrace the proper materials, and adequate results are not obtained.

In the treatment by allergic methods we either keep the patient away from the offending material or make him tolerant to it. In the former case the more absolute the avoidance the better results may be expected. If the patient is allergic to milk we must withdraw from the diet all milk, cream, butter, and other milk products. We must also forbid the eating of cakes and other foods in which these materials are used in the preparation. Sometimes it is impossible to prevent absolute contact. Here we attempt to decrease the contact as much as possible and to administer treatment.

The treatment is begun with very dilute extracts of the materials to which the patient is sensitive. The strength is slowly raised to such a point as to make contact symptomless. In other words we make him tolerant to it. This is not always easy, and it is not always successful, especially when the offending materials cannot be controlled.

Careful observation on the part of the physician and the patient will often lead to a correct solution as to the cause of many allergic conditions. We should observe that by withdrawing certain foods or avoiding certain contacts for several days, relief is obtained. We should also notice that when a patient eats certain foods or has certain definite contacts that attacks invariably follow. This certainly should tell us that the patient is allergic to these things.

In the majority of instances the instructions for treatment are simple and easily carried out but there are times when even in the most expert hands treatment is difficult. No set rule can be laid down as each patient is individually different. It is for this reason that the instruction sheets enclosed with extracts from commercial houses are not always attended by proper relief.

Carefully observing the results that are obtained by allergists in a series of cases will usually be sufficient to convince any practitioner, open to conviction, that the cause or causes of these conditions can be found and that results can be obtained by the allergic methods.

SURGERY AS AN AID TO DIAGNOSIS

Floyd W. McRae, M.D.
Atlanta

Several case histories are herein presented with their positive findings, and this will be followed by a general discussion and development of personal ideas. They are selected from a fairly large group. No acute surgical emergencies are included for evident reasons:

Report of Cases

Man, aged 72, with dull aching pain in R.U.Q., five days' duration; nausea with vomiting of prune juice colored material. Jaundice and black stools noticed. Temperature 99. Pulse 104. Blood pressure 142/84. W.B.C. 7,300. Red cells normal. E.K.G. negative. Obese abdomen with spasm in R.U.Q., and slight spasm over entire abdomen. No masses. Later, same day, went into shock; blood pressure 88/58; cyanotic, cold and clammy. Stimulated, transfused, etc., with only slight improvement; irrational most of time. Increase in liver dullness. Vomited almost everything, with some blood. Repeated examinations, laboratory and x-ray findings, did not give a positive diagnosis. There was a history of cholelithiasis, so acute cholecystitis was suspected and every effort was exerted to get patient in condition for operation. He did not respond and, although suspected, the diagnosis was only made after death. Diagnosis: gallstones; small pressure ulcer of gallbladder wall, perforation 2 mm. in diameter, slow leakage of bile with chemical peritonitis. No infection. A surgical diagnosis could have been made and operation should have been successful.

World War veteran spent several months in hospitals, complaining of backache and pain in left groin, and finally in left leg. History, examinations, laboratory and x-ray findings, were not definite and impressions varied from tuberculosis of spine to shell shock. Plaster jackets and traction applied, and patient stated that pain was unbearable. Six to eight months after onset a soft mass was found in left femoral region. Diagnosed as psoas abscess. However, at operation it was found to be sarcoma, and then a resurvey of many x-ray films revealed a small area of destruction in left pubic bone.

Man, aged 52, had chills, fever, weakness, nausea and vomiting. No pain. W.B.C. 13,000 to 20,000. Urine: albumen, casts and few blood cells. X-ray suggested evidence of right lung pathologic change. No x-ray of abdomen. No symptoms. No pain. Slight distention. Blood cultures, at times, positive for streptococcus hemolyticus. Seen by numerous doctors. In hospital 84 days. Many transfusions of whole blood. Died, and examination revealed a pin perforating through tip of appendix, permitting a slow intermittant leak, probably the focus of trouble.

Read before the Medical Association of Georgia, Macon, May 14, 1941.

Female, aged 52, with nausea, vomiting, pain in R.U.Q., and nervousness. Intermittant but over 8 years' duration. Appendectomy 24 years ago. Cholecystectomy 8 years ago. Symptoms not relieved by removal of gallbladder. Seen by many doctors at various times, without complete relief or definite diagnosis. Out of patience with medical profession and felt that perhaps she was simply nervous and that her condition was hopeless. X-rays elsewhere reported negative. X-rays of kidneys here negative. Spinal nerve roots injected with temporary relief from pain. History and examinations suggested ulcer; however, it was only after operation that a diagnosis was made of old perforated duodenal ulcer with abscess walled off by liver, etc. Resection gave relief.

Discussion

An attempt has been made to prove the usefulness of surgery as an instrument of diagnosis. There is no question regarding surgery as therapy and a definite diagnosis certainly pertains to more intelligent and effective treatment. Therefore, if surgery can aid in the diagnosis it will allow more efficacious treatment. It is my belief that early surgery following routine medical and laboratory examinations would have made a diagnosis possible in the above cited cases, and perhaps permitted successful surgical treatment.

May I impress upon you that no one gets the idea that I advocate too early surgery without competent and thorough medical regime. Such is not my premise. It is simply after the usual methods have not made a diagnosis possible that the aid of surgery be sought without procrastination. I would also like to urge surgery rather than just a surgeon in consultation.

Our hospitals are or should be adequately equipped, the operating rooms well planned and manned. There is a wide variety in choice of anesthetics. Blood and (or) plasma are available. All this so practical that any patient, no matter how desperate the situation, can be put in condition for surgery.

A qualified surgeon is presumably available, for poor surgical judgment or surgery may do much harm and actually give a wrong diagnosis or prevent positive findings. No excuse is offered for the surgeon who is not trained and who does not seek and use all necessary medical and laboratory help. He is not considered. Certain prerequisites should be required of everyone permitted to be classed as a surgeon. One need not be a master technician, yet he must be well trained and honest. Surgical diagnosis may be advisable, but surgical therapy which in one way or another does not seek to benefit the patient cannot be justified.

Emphasis is placed upon use of the term diagnostic rather than exploratory, for surgery should be revealing and result in knowledge. Facts are obtained by examination of the peritoneal fluid, the location of normal organs, as well as abnormal, and any variations. Mayo Clinic doubtless owes at least a part of its reputation to the use of diagnostic surgery wherever indicated, and usually long incisions are associated with their work.

Let us use surgery as a useful, and at times necessary, factor in our search for cause and effect of disease. It will thus work hand in hand with all other methods at our command and increase our efficiency and ability to help.

DISCUSSION ON PAPER OF DR. FLOYD W. MCRAE

Dr. Frank K. Boland (Atlanta): Certainly a paper as interesting and important as this should not go without discussion.

Dr. McRae has given us some very difficult cases to ponder over. I would like to call attention to a few non-surgical conditions which cause abdominal pain and which should be thought of in making diagnoses.

First among these, I think, is the differential diagnosis between acute appendicitis and pneumonia or diaphragmatic pleurisy, especially in children. I think this is one of the first differential diagnoses we ever learned to make. Today we do not make many mistakes in operating on children above the diaphragm.

Another thing is the bite of the black widow spider. We don't see many today but we all probably have seen cases and we know how much abdominal pain is caused by this condition. When we have the history of bite of a black widow spider, such a mistake should not be made.

Gastric crises of tabes is also mentioned as something to be ruled out. I haven't seen but one case in which the possibility of surgical interference was considered. I don't know of any case in which the operation was done.

Another condition that I think is commoner than these is herpes zoster, or shingles. I have seen a good many cases of abdominal pain caused by this condition. It is very puzzling. I have in mind a case seen recently in a woman eighty years of age who had almost all the symptoms of an acute gallbladder. She was taken to the hospital and x-rayed and nothing was found. She had

intense pain in the right upper quadrant of the abdomen and leukocytosis. Something in the case held us back from operating. One thing was her age, and the x-ray did not bear out any diagnosis of gallbladder disease. She was treated medically. While shingles usually disappears about the fourth or fifth day after the onset of pain, in this case the eruption did not occur until ten days after onset.

Gallbladder disease and coronary occlusion also must be differentiated. I recall that the late Dr. Stewart Roberts reported a case in which autopsy proved both conditions to be present in the same patient at the same time.

Dr. Hal M. Davison (Atlanta): Dr. McRae calls our attention to the fact that it is sometimes very difficult to determine when the abdominal pain demands an operation. His paper points out the fact that there is a very definite line of cautious procedure which lies between the surgeon, who does not make a complete examination of his patient and operates for diagnosis; and on the other hand, the medical man, or surgeon, who waits too long for an operation, and thereby endangers his patient's life or health.

Most of us can look back over our practice and find cases of mistaken diagnosis of abdominal pain, such as congenital adhesions, of bands, postoperative adhesions, cases of diverticulum of duodenum, new growths in the colon, chronic appendices and the like.

We still need more cooperation between surgeons and the medical men.

Dr. Edgar H. Greene (Atlanta): Notwithstanding the fact that Dr. McRae has covered the Surgical Diagnosis of abdominal pain in a detailed manner, I would like to re-emphasize two problems of importance; namely, kidney and pelvic pathology. Dr. Selman, who preceded me in the discussion, named a twisted ovarian cyst as a possibility for the cause of abdominal pain. To this possibility, I deem it necessary to add kidney involvement. This complication has been noted in many postoperative diagnoses and, therefore, should always be considered before abdominal surgery is suggested.

Be the character of a young girl, after reaching puberty, impeccable or questionable, I think a thorough pelvic examination is the proper procedure before a correct diagnosis of abdominal pain is attempted. My reasons for a thorough pelvic examination are two-fold: First, a pelvic examination might eliminate the great feeling of inadequacy that sometimes comes from a postoperative diagnosis. Second, it may save the surgeon legal embarrassment. He should always remember to do no more surgery than was authorized by the responsible person.

Dr. C. F. Holton (Savannah): I think Dr. McRae has given us a lot of food for thought. I want to follow along Dr. Boland's talk. There are some things to be ruled out in acute abdominal pain. We must not overlook the patient operated on a good many times with fatal results, and that is coronary occlusion. It often simulates duodenal ulcer. Females are often operated upon for appendicitis when the condition is rupture of a follicular cyst. A young woman seized with abdominal pain, and who has usually a high blood count and rigidity in the right side, should be questioned as to menstrual periods. A cyst may rupture about midway between periods and if it bleeds a few drops it will simulate appendicitis. If we are careful, it may save many girls having their abdomens opened for the removal of a perfectly harmless appendix.

A third thing that causes pain in the abdomen and which can be ruled out, and which is so often not even thought of, is stricture of the ureter, especially in the right side, which simulates appendicitis. Many of these patients have had operations before but some may not have had their appendix removed. A cystoscopic examination and a catheter put in the ureter will rule that out. I have had within the past five or six weeks six women with pain in their right sides that was cured by dilating the ureter. I made the diagnosis and referred them to a urologist. One girl, a doctor's wife, was operated on two years ago without any relief of symptoms. I had a urologist check her ureter and he found a tense stricture which he dilated six or eight months ago and she has been free from pain ever since.

Enteritis in children who have high blood counts is often mistaken for appendicitis. We should watch carefully for such condition, and, of course, the patient with it should not be operated upon.

Dr. J. A. Redfearn (Albany): I will take only a moment to emphasize this point; that it is well worth while, I am sure, to get a medical opinion before following out exploratory laparotomy as routine.

The question of coronary occlusion is the point I want to bring to your attention. Many patients in the past have been operated on because of some atypical condition. Only day before yesterday a surgeon called and asked me to come and give my opinion on just such case. On Tuesday night before, severe pain requiring morphine by hypodermic and after several hours was relieved in a mechanic fifty-one years old. He had done hard work and this was his first real illness. The man's white count was 18,000. His temperature was slightly above 100, pulse 120, no nausea and no vomiting. His liver was not palpable but the pain was most intense in the gallbladder area and radiated slightly toward the left anterior chest. The surgeon was thinking about exploratory laparotomy. An electrocardiogram showed typical in that inversion of T_I and IV_F and an elevation of one and a half millimeters of the S-T segment in lead IV presented evidence unquestionably of atypical coronary occlusion.

Dr. Floyd W. McRae (Atlanta): I purposely did not bring up the question of the acute surgical abdomen. In these cases the diagnostic ability of the surgeon, plus the medical help and laboratory help, are factors which must be taken into consideration. The surgical judgment of Dr. Boland differentiates between herpes zoster and acute intra-abdominal conditions. I have many times had to eat my words and have seen other doctors do the same thing when we accuse patients of being simply nervous and having nothing wrong with them. I think the more we examine patients, the better we can be able to make positive diagnoses as time goes on. The

man with sarcoma I referred to in my paper was diagnosed as a shell-shocked veteran. He was seen by three men in Atlanta and at the best hospitals. He was considered a morphine addict. When it proved to be sarcoma, everyone felt badly about it.

A LARGE OVARIAN CYST: DERMATOID VARIETY

S. E. SANCHEZ, M.D.
Barwick

Mrs. R., aged 42, a native Georgian, was the mother of ten children, all in good health except for malaria. She had been advised by her family physician that her only chance was an operation. Her husband was in good health.

I saw the patient about a week before the operation and advised her that her only chance of recovery was from an operation and that her chance with an operation was poor. She consented to the operation, stating that she was willing to undergo the risk.

On March 2, 1915 she entered the City Hospital, Thomasville. Her temperature was normal, pulse 100, red blood count 3,200,000, white blood count 6,500, stool negative, urine negative. Her heart was displaced 5 inches upward, due to the large mass in her abdomen. She gave a history of afternoon temperature several days out of the week. The patient was very weak and emaciated but was able to be about some. Her appetite was only fair.

She was prepared for operation on the night of March 2, being given 1,000 cc. of saline intravenously, soapsuds enema and no water or other liquids after midnight.

Incision was made in the median line. Very dense adhesions were found on the lateral and posterior walls, none being present on the anterior wall. Those on the lateral side were clamped off and tied and part of the neoplasm removed. One gallon of fluid was then removed from the center of the newgrowth. The adhesions on the posterior wall were clamped and more of the tumor was removed. The neoplasm was pedunculated, the peduncle growing from the left ovary. The cyst was getting its blood supply from the adhesions in the sides and back and the peduncle was strangulated due to torsion. In lifting the last part from the abdominal cavity the woman became cyanotic. Her pulse ran up to 160. At this time we put sufficient pressure on the chest to take the place of the pressure which was removed from within. The administration of saline was then begun. The wound was closed in the usual way, silkworm gut being used for the outside suture. The weight was gradually removed from the chest during the first twenty-four hours.

After removal of the growth the apex beat returned to its normal position.

Due to its size, the tumor was removed in three sections, one following the other. It was found to be of the dermoid variety, cystic and containing one gallon of fluid in its center. The solid part of the tumor weighed 66½ pounds, the fluid 9 pounds, making a combined weight of 75½ pounds.

The patient remained in the hospital for eighteen days making a rapid normal recovery.

Seven months and twenty-five days from the date of the operation she gave birth to a ten pound boy, her eleventh child. She did not give history of irregular menstruation at the time of the operation and no suspicion was aroused as to her being pregnant although her uterus was apparently slightly enlarged. Three months after her return home she felt movement of the fetus.

She is in fair health twenty-five years after leaving the hospital with no apparent recurrence of the growth.

This enormous tumor was seemingly the largest on record until Dr. N. Nedergaard, Bankok, Siam, removed an ovarian cyst weighing 80 pounds from a Siamese from the far away jungles of South Siam Island.

I wish to state, in conclusion, that I am very grateful to my assistants for their cooperation in this case; Drs. Cheshire, deceased, Ainsworth and Ferguson.

UNDERMINING MEDICAL PRACTICE

If it were not so serious, one could derive a certain amount of amusement from the clamor that periodically arises when some branch of medicine is encroached upon by nonprofessionals and is tolerated and even encouraged by the law. In the years gone by ophthalmology has given birth to the optometrist and optician. General practice has sired the physiotherapist. Anesthetists are responsible for the large number of nurses who have intruded into the specialty. There has even been a movement to qualify laymen as "audiometrists" who would be eligible to test hearing with an audiometer.

We, as a whole, have no one but ourselves to blame for this situation. It is a result of carelessness, but more so of indolence in the performance of the time-consuming details attendant upon every branch of medicine. Others have been quick to see the lucrative possibilities of these stepchildren of medicine. They have had our unconscious support in the development of these fields during the past decade and a half, when the medical profession was intense in the encouragement of specialization.

When the world depression began to affect the income of physicians, it began to dawn upon us that we had relinquished a considerable source of revenue which rightly belonged to the doctor. Rectification of the situation was impossible. There are still fields in which there is a tendency to relegate medical functions to laymen. In radiology, dermatology, and orthopedics — to name a few—one sees this inclination all the time. If we are not to be further encroached upon, it is up to us, and us alone, to stop it.

—New York State Journal of Medicine, Vol. 41 (Oct.) 1941.

JARVIS GIPSON DEAN, M.D., Dawson
President, 1916-17
July 9, 1858—September 11, 1941

GEORGE ALBERT TRAYLOR, M.D., Augusta
President, 1937-38
October 7, 1879—September 15, 1941

The Grim Reaper has struck again. He has gathered into his fold two more of our former leaders — one in full maturity of years and the other at well-ripened usefulness. Our loss is great. But, where is thy victory, Death, when we have the living memory of these gallant knights of our noble profession?

"I am my brother's keeper" keeps ringing in my ears as I contemplate the lives and work of these two heroes. They practiced and preached that medicine is a profession — a noble profession which demands and brings forth the best in its followers. They showed that, for the physician, his greatest achievement is, first, to be a "good doctor" first, last and always; second, to strive to do something for his profession. All other success is but dust and ashes if he fails in these.

The Medical Association of Georgia has had many leaders but never has it had two more courageous, faithful and steadfast than these two.

Allen H. Bunce, M.D.

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THE TREATMENT OF PNEUMONIA

The radical change in the treatment of pneumonia during the past few years has marked one of the outstanding progressive steps in medicine. The decided reduction in the mortality rate and the less serious condition of the average patient while ill with pneumonia, has gladdened the heart of every doctor.

In 1940 there were almost 1,000 people alive in Georgia who would have died of pneumonia in 1939 had not we had new therapeutic measures. In the United States there were approximately 20,000 lives saved from pneumonia compared with 1935.

In treating pneumonia one cannot ignore many of the older and still highly important procedures, but the weapon which is proving so remarkable in combating this terrible enemy is chemotherapy. The two drugs which so far have proved the greatest value are sulfapyridine and sulfathiazole, with still another drug, sulfadiazine, now coming in for attention. Sulfapyridine is perhaps a little more toxic than sulfathiazole and for that reason the latter is preferred by some men. There seems little to choose between the two drugs otherwise.

When given by mouth the average patient with pneumonia should receive 2 grams (30 grains) as the initial dose to be followed by 1 gram (15 grains) every four hours day and night until the temperature of the patient has reached and remained approximately normal for 48 hours.

After that 7.5 grains every four hours will usually be sufficient and this should be continued for an additional two or three days. In the treatment it is advisable to determine the blood concentration of the drug and in this way the dosage can be more adequately controlled as some patients will require a little larger dose than others. A very high blood concentration is neither necessary nor advisable. Three to 6 milligrams per cent is sufficient in the average uncomplicated case.

The intravenous use of sodium sulfapyridine or sodium sulfathiazole is indicated at times. In extremely severe cases where the disease is widespread, in pregnant women who are having nausea and vomiting, in any case where the patient cannot retain the drug when taken by mouth, and in cases where it is imperative to get the desired blood concentration very quickly, the drug should be given in the vein. When given intravenously the distribution of the drug between the blood and the body tissues becomes practically complete in from 5 to 10 minutes.

The dosage of either drug when given in the vein is figured at 0.06 gram per kilogram of body weight. The drug is made up in a 5 per cent solution of sterile distilled water and injected very slowly, not more than 5 cc. per minute. This dosage may be repeated at 6 to 8 or 10 hour intervals and seldom will it be necessary to give more than three doses. In some cases one or two doses may be given in the vein after which it is possible to continue the drug by mouth.

When it is possible to do so the sputum of the patient should be typed. This must be done before chemotherapy is started, for once the drug gets into the system it is not possible to type the sputum. This is important for two reasons: first, because one never knows when he will encounter a patient who cannot tolerate chemotherapy, and second, because in some few cases it is wise to use chemotherapy and specific serum concurrently.

In our enthusiasm in the use of this new group of drugs, their dangers should not be overlooked for they are very real in certain instances. The drug must be discontinued if either hepatitis, anuria, agranulocytic angina, or acute hemolytic anemia occurs. It is well to reduce the dosage and go carefully if any of the following conditions appear: psychosis, neuritis, rash, painful joints or stomatitis.

While the advent of chemotherapy has turned the tide in pneumonia mortality.

there are other important procedures which we must not overlook. The need for oxygen for pneumonia patients is not so great now as it once was, but its use is still advisable and necessary in some cases. If an oxygen tent is not available one may give it through a nasal catheter and obtain quite satisfactory results. The patient should be as comfortable as is possible in a quiet room; use morphine and phenobarbital if necessary. Keep well-meaning friends and other people away from him.

The diet should be liquids only for the first 24 to 48 hours, but after that time a soft diet is preferred.

Proper attention to the bowels, keeping the belly flat, is always highly important. Glucose solution, either in small concentrated doses or large amounts of 5 or 2½ per cent is indicated in most cases. Remember two things: pneumonia is a medical emergency and should be dealt with accordingly; and second, treat the patient as well as the disease.

Avary Dimmock, M.D.

ANTERIOR POLIOMYELITIS

In the present year we have witnessed the most severe epidemic of anterior poliomyelitis in the history of Georgia. Cases were seen as early as January, a fact which presaged a high incidence for the summer months.

Many problems concerning this disease remain unsolved. The most important are its mode of spread and portal of entry. Considerable doubt has arisen that transmission is similar to that of a respiratory disease, and the former view of invasion by way of the olfactory mucosa has found little to support it. Olfactory invasion in human cases must be rare, since the olfactory bulb rarely shows any lesions. Recent evidence points more to the gastro-intestinal tract as the primary point of involvement, with secondary spread to the nervous system. Among the evidence, we may cite the work of Sabin who found the virus in human cases only in the nervous system and in the wall of the gastro-intestinal tract, from the pharynx to the colon. He was unable to isolate virus from the olfactory bulb, salivary gland, nasal or oral secretions. On the other hand, the stools are infective in a large percent, and may continue to be so for weeks and months. Secondary invasion of the nervous system probably occurs by way of the cranial nerves from the pharynx to the medulla, or by other autonomic nerves from the lower gastro-intestinal tract to the cord. It may be possible to map out the paths of such invasion by careful pathologic studies to show the distribution of lesions in the nervous system, and this will probably reveal several different routes. However, present data strongly suggest that transmission from person to person occurs by way of the gastro-intestinal tract as in typhoid. Preventive measures along that line seem indicated.

Caution regarding tonsillectomy during an epidemic is emphasized by the report of five cases in one family of another state, developing twelve days following operation. All were of the bulbar type, and thought to depend on opening up pathways in the pharynx.

Whatever immunity is developed depends not only on a reaction of the nervous tissue itself, but as Howe has shown in animals, occurs only in parts of the nervous system previously affected. It is also interesting to note that resistance is greatly increased in nerve cells undergoing repair following some lesion.

In regard to treatment, doubts are apparent concerning the degree of immobilization and exercise advisable. Probably the influence of the Kinney method of treatment has been of value in reducing too prolonged immobilization. Vitamins have been used considerably with the idea of maintaining maximum nutrition of nerve cells and muscles. Prostigmin in suitable doses may facilitate contraction of severely weakened muscles, through its effect on the nerve endings. Boyd has recently discussed the care of patients in order to prevent development of renal stones and infection, emphasizing frequent change in position of the paralyzed patient. Research is proceeding on many aspects, and solution of these problems is eagerly awaited.

Wm. A. Smith, M.D.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

LET'S LOOK AT OUR PROBLEM

It is with considerable hesitation that I write this article. Realizing my inability to properly present this subject, I hope that others more gifted will carry the idea forward until we have reached the solution to this serious problem.

TEN LEADING CAUSES OF DEATH AT TEN YEAR PERIODS
1900-1940

1900	1920	1930	1940
1. Tuberculosis	Pneumonia	Heart Disease	Heart Disease
2. Pneumonia	Influenza	Nephritis	Nephritis
3. Diarrhea and Enteritis	Tuberculosis	Pneumonia	Cerebral Hemorrhage and Thrombosis
4. Heart Disease	Nephritis	Cerebral Hemorrhage and Thrombosis	Accidents
5. Typhoid	Heart Disease	Tuberculosis	Pneumonia
6. Accidents	(Malformation and Early Infancy Diseases)	Accidents	(Malformation and Early Infancy Diseases)
7. Malaria	Accidents	(Malformation and Early Infancy Diseases)	Cancer
8. Diphtheria	Cerebral Hemorrhage and Thrombosis	Cancer	Tuberculosis
9. Cerebral Hemorrhage and Thrombosis	Diarrhea and Enteritis—2 Years	Influenza	Influenza
10. Influenza	Cancer	Diarrhea and Enteritis—2 Years	Homicide

This is the age group when a man is supposed to be in the prime of life and to us should indicate the seriousness of this matter.

When we look over the leading causes of death by ten years periods since 1900 we may view with pride the achievements of medicine in the control of the preventable diseases such as smallpox, diphtheria, typhoid, malaria and tuberculosis. As these diseases have not been eradicated, we cannot afford to relax the slightest, but should strengthen our efforts against these conditions.

We should view with alarm the three leading causes of death for 1940. We see that 12,559 persons died from the three leading causes, heart disease, nephritis and cerebral hemorrhage. A study of these figures broken down into age groups shows that 4,345 of these deaths occurred in the age group 35-59 years; or, 34.6 per cent of the total deaths occurring in Georgia were from heart disease, nephritis and cerebral hemorrhage and 13.5 per cent of the total deaths for the state were from these three diseases in age group 35-59.

The question will quite naturally arise in many minds, "What are we going to do about it when we have no specific preventive measure for heart disease, nephritis and cerebral hemorrhage?" The answer to that would be early diagnosis and proper treatment. The next question that would arise is, "How are you going to make an early diagnosis and institute proper treatment when you are not called until the patient has had a cardiac or cerebral accident or is in uremic coma?" The answer to that is more difficult and will only be arrived at by hard work on the part of every physician in our state. The answer is ROUTINE ANNUAL PHYSICAL EXAMINATION on every one of your patients. Every physician in this state must do his part, not only by urging his patients to come in for routine physical examinations, but by giving them a real physical examination when they do come into his office.

A complete physical examination should also include a careful detailed history, as such a history may give many an important lead to the early diagnosis of serious conditions. A careful history may elicit—loss in weight; poor appetite; cough and fatigue; gain in weight; dizziness; headache; ringing in ears; nocturia; shortness of breath and disturbances in vision;

NUMBER OF DEATHS FROM HEART DISEASE, NEPHRITIS AND CEREBRAL HEMORRHAGE FOR GEORGIA DURING 1940 IN 5 YEAR AGE GROUPS FROM 30-89 YEARS TOTAL, WHITE AND COLORED

Age Group	Total All Ages	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89
Heart Disease Total	6176	159	195	340	456	580	629	739	805	688	547	454	217
White	3662	37	65	106	190	255	334	466	563	522	414	376	174
Colored	2514	122	130	234	266	325	295	273	242	166	133	78	43
Nephritis Total	3348	73	96	158	165	257	293	373	420	418	346	342	169
White	1848	21	25	52	63	78	124	199	261	287	252	257	123
Colored	1500	52	71	106	102	179	169	174	159	131	94	85	46
Cerebral Hemorrhage Thrombosis Embolus Total	3035	55	77	151	235	355	358	371	417	328	271	202	96
White	1574	15	18	35	69	113	168	211	251	222	205	147	66
Colored	1461	40	59	116	166	242	190	160	166	106	66	55	30

lump or mass in breast, abdomen or elsewhere; intermenstrual bleeding; disturbances in digestion; jaundice; or many other conditions which would cause you to attach much more significance to a slight departure from normal found on the physical examinations.

Then, by carefully examining the patient, you would notice the general physical appearance, nutrition, bony structure, deformaties, skin, hair, movements of chest during respiration, the eyes, eye-grounds, nose, teeth, tongue, throat, ears, a careful study of the chest may reveal disease of the lungs or heart, careful examination of the abdomen for abnormal tenderness or masses, rectal, vaginal examination, testing of reflexes, blood tests, urinalysis, blood smear, and such special examinations as may be indicated, as a blood chemistry, x-ray, spinal fluid, biopsy and electrocardiogram.

If the above were followed many patients with early tuberculosis, heart disease, nephritis, arteriosclerosis, cancer, diabetes, syphilis as well as many other conditions would be discovered in time to receive maximum benefit from treatment and live many years of useful lives, whereas, if allowed to go until such patients become really ill the condition may be hopeless.

The annual physical examination has been suggested from time to time but has never had the whole hearted support of every member of the medical profession. The Medical Association and the Public Health Officials should devote a concentrated effort in educating the public to the value of such a procedure, but any effort of this sort will be sure to bog down unless the family physician does his share. The family physician is the medical counselor to his patient and his word is accepted above that of all others in matters pertaining to medicine. He should, therefore, do everything to stimulate and encourage his patients to have at least an annual physical examination.

Average age at death for Georgians in 1900 was 27.2 years and in 1938 was 45.0 years.

When we have educated our patients to this procedure we will have postponed these deaths from the degenerative diseases into age groups beyond what we consider the prime of life and Georgians will be living out their life expectancy and we will have increased the average age of death again as much as it has been increased during the past 40 years.

David Wolfe, M.D., Director
Information & Statistics Division
Georgia Department of Public Health.

NEWS ITEMS

The Staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on October 9. Dr. Linton Smith reported a case, *Unusual Gallbladder Complications;* the discussion was led by Dr. T. C. Davison, a guest speaker. Dr. Joe Boland is secretary of the staff.

The Bibb County Medical Society met at Ridley Hall, Macon, October 7. The program consisted of reports of clinical cases.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Atlanta
Executive Secretary—Durice Dickerson, R.N., Atlanta

131 Forrest Avenue, N. E., Atlanta—Telephone WAlnut 8911

NURSES' PROFESSIONAL REGISTRIES AND EMPLOYMENT AGENCIES

Principles and Policies of the Georgia State Nurses' Association

MRS. MILDRED B. PRYSE, R.N., *Chairman Registry Committee, G.S.N.A.*

The Georgia State Nurses' Association has an active Registry Committee whose function is to study standards for nurses' registries in regard to organization and operation and to be instrumental in setting up helpful principles and policies in order to aid district registries in determining the needs and in supplying adequate nursing service in their respective communities.

Some of the policies adopted by G.S.N.A. in relation to operation of registries are as follows:

1. That each registry keep a list of those nurses available for National Defense and a list of inactive nurses available for emergency or epidemic.

2. Appointment of an Advisory Committee to the district registry committee composed of representatives of the district's hospitals, health agencies and medical groups.

3. That registries list all types of subsidiary workers, however, keeping careful records of their credentials and experiences so as to promote an information program which will prevent exploitation of both worker and the community they serve. These workers should be carefully supervised by registered nurses.

4. Chevrons to be worn by all graduate registered nurses in the private duty field.

5. Follow up service and physical examination on all registrants.

6. All registries in a certain district should adopt uniform rules and regulations, prices, etc., notifying all hospitals and those using nursing service of these rules.

7. Registry to be in a central location easily accessible, giving a 24 hour service, preferably with three registrars on eight-hour day each.

8. Establish an eight-hour day by all nurses.

9. When necessary for a nurse to be called from one district to another, she should be governed by the rules and regulations of the district into which she goes. The consumer is responsible for informing all concerned of this policy in order to avoid confusion.

The patient is responsible for the room and board of the nurse when necessary to use the services of a nurse from another district.

10. Annual survey of community nursing service to determine needs and the distribution.

11. Educational programs to inform the public as to "Safe Nursing Care and Where to Ask for It," also to classify nursing and nurses.

12. Good record system is a vital part of any registry so as to have credentials of each nurse, especially *preparation, experience* and *availability.*

Although some of the districts have no registry other than hospital lists of available nurses, they should adopt rules and regulations in line with the State policies and in keeping with working and living conditions in their respective communities.

The Registry Committee of G.S.N.A. sponsored three registry institutes in Georgia this year. They were held in Atlanta, Macon and Savannah. Miss Mary Margaret Muckley of the headquarters staff of the American Nurses' Association of New York City conducted the institutes. The Registry Committee reports many changes in standards of the Georgia registries which will increase their efficiency.

There are three professional registries in Georgia. These registries are organized by, affiliated with, or approved by local district nurses' associations and approved by the Georgia State Nurses' Association. They meet the standards suggested by the American Nurses' Association and make regularly monthly reports of their activities to the State and National Associations. They are as follows:

Atlanta, Parlor D, Henry Grady Hotel, Katharine Joiner, R.N., Registrar.

Macon, 510 Orange St., Blanche Jackson, R.N., Registrar.

Savannah, 10 East Macon St., Mrs. Kate G. Sullivan, R.N., Registrar.

NEWS ITEMS

DR. M. K. BAILEY announces the association of Dr. Chester A. Fort in the practice of urology with offices in suite 1106 Medical Arts Building, Atlanta.

THE SECOND DISTRICT MEDICAL SOCIETY met in the American Legion Home, Tifton, October 10. Dr. W. L. Wilkinson, Bainbridge, read a paper on *Pediatrics;* Dr. Warren A. Coleman, Eastman, *Diseases of the Thyroid Gland;* "Address," Dr. Allen H. Bunce, Atlanta, president of the Medical Association of Georgia; Dr. R. C. Pendergrass, Americus, *Unusual Gastro-Intestinal Lesions—Lantern Slides;* Dr. C. A. Fleming, Tifton, *Preoperative and Postoperative Care.* Officers of the Society are: Dr. J. V. Rogers, Cairo, president; Dr. Gordon S. Sumner, Slyvester, vice-president; Dr. J. C. Brim, Pelham, secretary-treasurer.

WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.
President-Elect—Mrs. J. Lon King, 223 Buford Place, Macon.
First Vice-President—Mrs. W. A. Selman, 760 Penn Avenue, N. E., Atlanta.
Second Vice-President—Mrs. Fred Rawlings, Sandersville.
Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.
Third Vice-President—Mrs. J. R. McMichael, Quitman.
Recording Secretary—Mrs. J. C. Metts, 303 Anderson Ave., Savannah.
Parliamentarian—Mrs. J. E. Penland, Waycross.
Treasurer—Mrs. Bruce Schaefer, Toccoa.
Corresponding Secretary—Mrs. Charles Usher, 6 East Liberty Street, Savannah.
Historian—Mrs. Ralph Freeman, Hoschton.

Health Films

Mrs. Leo Smith, of Waycross, chairman of health films for the Woman's Auxiliary to the Medical Association of Georgia, has written the following most interesting message to Georgia members:

"The members of the Woman's Auxiliary to the Medical Association of Georgia have an unusual opportunity for constructive work in the field of Visual Health Education this year. The Association bought ten complete sound movie machines, one for use in each congressional district. The machines will be used by the Councilors and Auxiliary for the purpose of lay health education and for creating public interest in health. The Medical Association of Georgia and the State Department of Public Health have provided funds for the purchase of new health films. Since we now have the machines and the films, it is up to us to see that as many people in the State of Georgia as possible benefit from them.

"The success of the program depends in a large degree on the district managers. They should learn to operate the machines, know the health problems of each county in the district and generally supervise the health programs outlined and scheduled by the local health chairmen. These health films are suitable to be shown to both elementary and high schools, 4-H clubs, P.-T. A. and other civic organizations. The films may be shown only in conjunction with a physician speaker. In order to stimulate interest among the general public in the health programs, chairmen should see that local newspapers carry publicity.

"As soon as the list of films available is completed, each Auxiliary president will receive a copy. Write to your district manager for the film wanted, specify the date of the meeting, the name of the lay organization cooperating and the name of the physician speaker.

"In order to stimulate interest and to promote a spirit of friendly rivalry among the Auxiliaries, I am offering a prize to the county Auxiliary showing the largest number of health films this year. The prize, to be in permanent possession of the winning Auxiliary, will be an embossed minute book. I realize that this is a new program and that we cannot expect to have a perfect working plan this year, yet I urge you to emphasize your health education program so that the people of Georgia will become more health conscious."

Ware County

The Woman's Auxiliary to the Ware County Medical Society in Waycross has been very active in Red Cross work during recent months. One of the members, Mrs. C. A. Witmer, a staff assistant, teaches knitting and is supervisor of the work room several hours a week. Mrs. Loomis Pomeroy, another staff assistant, is supervisor of surgical dressings five hours a week. Mrs. R. C. Walker is executive secretary of the Waycross unit and is doing wonderful work. Mrs. C. M. Stephens, who organized the Waycross unit in 1917 and was its first chairman, is still very active in the work.

Mrs. Ansley Seaman, Mrs. J. E. Penland, Mrs. Lovick Pierce and Mrs. Leo Smith are among Waycross Auxiliary members taking staff assistants' training course. Several other members have received certificates in previous courses. Mrs. B. H. Minchew is chairman of the Motor Corps service and is one of the speakers for the training course. Mrs. Walker will also speak; and Mrs. Stephens one day told of the origin and history of Red Cross. Later Mrs. Stephens will give other lectures on "Red Cross Nursing Service" and "Hospital and Recreation Corps." All of the Waycross Auxiliary members are doing some form of Red Cross work, knitting, surgical dressings, sewing, canteen service or personal calls. Many of the members are entertaining soldiers from nearby camps each week-end. The Auxiliary is 100 per cent Red Cross.

Third District Auxiliary

The Woman's Auxiliary to the Third District Medical Society met in Americus recently. Mrs. C. P. Savage, of Montezuma, manager, presided. The Rev. Mack Anthony gave the invocation and Mrs. Robert Pendergrass, of Americus, welcomed the guests; Mrs. W. G. Elliott, of Cuthbert, responded. Mrs. Lee Howard, of Savannah, president of the Woman's Auxiliary to the Medical Association of Georgia, spoke on "The Auxiliary" explained the work and importance of each committee; Mrs. J. Lon King, of Macon, president-elect of the State group, talked on "Why An Auxiliary Member?" her theme was that each doctor's wife has a definite place and work

in the world and her duty is to do that work. Dr. Allen Bunce, of Atlanta, president of the State Association, spoke on "Forward Georgia." Later guests were entertained by the Sumter County Auxiliary, Mrs. Russell Thomas, president.

RANDOLPH COUNTY

The Woman's Auxiliary to the Randolph County Medical Society met recently in Cuthbert. As she is moving to another state, Mrs. Loren Gary, Jr., who has served most efficiently as president since 1936, tendered her resignation. It was accepted with regret as Mrs. Gary is a very capable presiding officer and a willing worker. Mrs. W. G. Elliott was elected to succeed Mrs. Gary, who also has been forced to resign as recording secretary of the State organization due to her departure from Georgia.

FULTON COUNTY

The Woman's Auxiliary to the Fulton County Medical Society held its first meeting of the new year September 5 at the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta. Mrs. Murdock Equen, president, presided and outlined plans for the year, and that the Auxiliary's theme was "The Doctor's Wife and National Defense." Dr. Howard Hailey, president of the Fulton County Medical Society, and Dr. Eustace Allen, secretary, gave interesting talks and stressed the importance of building the new Academy of Medicine and ways in which Auxiliary members could assist the society. Mrs. Floyd McRae, Jr., one of the officials of the Atlanta Chapter, American Red Cross, told of the work being done by the chapter and asked cooperation of the Auxiliary. Mrs. Crawford Barnett, chairman of the House Committee, and her group, served luncheon.

Mrs. Equen entertained members of the executive board at a beautiful buffet luncheon in August at the Piedmont Driving Club, this followed the first board meeting. Plans for the year's work were outlined, various officers and chairmen presented their programs for 1941-42.

NATIONAL BULLETIN

Following are excerpts from a message by Mrs. Charles Werner, of St. Joseph, Mo., circulation manager of the bulletin published quarterly by the Woman's Auxiliary to the American Medical Association:

"The Woman's Auxiliary has grown until it has a membership of over 27,000. During these critical times when American medicine is confronted with developments which threaten its established principles, it is extremely important that the Auxiliary conduct its affairs in such manner as to bring no reflection on ideals of the parent body. To this end the members of our organization as well as officers and chairmen who manage its affairs, should be informed concerning all plans and policies. They should also keep abreast of the times regarding those questions which are of interest to the medical profession.

"The Bulletin is the official organ of our organization and from now on official programs of standing committees will be printed in The Bulletin instead of in leaflets. This plan will eliminate much printing and postage expense. The programs will reach state and county officers at the same time, making it easier to plan the work early in the year. Besides the programs, each issue of The Bulletin will contain information relative to home defense measures, nutritional education or Pan American unity."

The Bulletin is priced at $1.00 a year (4 copies) and all Georgia members are urged to subscribe. Subscriptions sent to the state press chairman, Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta, Ga., will be forwarded promptly to Mrs. Werner.

NEWS ITEMS

DR. EDGAR F. FINCHER and DR. RICHARD B. WILSON, both of Atlanta, led a symposium on "Poliomyelitis" in Macon on August 26. Other speakers on the program were Dr. C. Hall Farmer, Dr. J. Allen Smith, Dr. W. A. Newman, Dr. Max Mass. The physicians were guests of Dr. C. L. Ridley, superintendent of the Macon Hospital.

DR. WILLIAM C. THOMPSON, Dublin, announces the association of Dr. Leo C. Smith, Jr., in the practice of medicine and surgery at Thompson's Sanitorium. His practice will be limited to surgery.

THE SOUTHERN PSYCHIATRIC ASSOCIATION held its last annual meeting at Hotel Noel, Nashville, Tenn. Dr. Newdigate M. Owensby, Atlanta, is secretary-treasurer and a member of the American Board of Psychiatry and Neurology.

THE NINTH DISTRICT MEDICAL SOCIETY met in the Newton-Ward Funeral Parlor at Gainesville, September 17. Dr. E. L. Ward, Gainesville, made the "Address of Welcome"; Dr. E. R. Harris, Winder, "Response to the Address of Welcome"; Dr. Pratt Cheek, Gainesville, secretary, read the minutes of the previous meetings. "Addresses" by Dr. Allen H. Bunce, Atlanta, and Dr. J. A. Redfearn, Albany, president and president-elect of the Medical Association of Georgia, respectively. Dr. Calhoun McDougall, Atlanta, spoke on *Diagnosis and Treatment of Acute and Chronic Sinusitis*; the discussion was led by Dr. C. G. Butler and Dr. E. L. Ward, both of Gainesville. Luncheon was served at the Dixie Hunt Hotel.

THE JACKSON-BARROW COUNTIES MEDICAL SOCIETY met at the Harrison Hotel, Jefferson, September 8. Dr. Stewart D. Brown, Royston, spoke on the *Various Pathologic Conditions Found in the Acute Abdomen*; the discussion was led by Dr. C. B. Lord, Jefferson; Dr. A. A. Rogers, Commerce; Dr. Allen, Hoschton; and Dr. W. D. Gholston, Danielsville.

THE ANNUAL CONFERENCE of Secretaries of Constituent State Medical Associations will be held in the offices of the American Medical Association, Chicago, Friday and

Saturday, November 14-15, 1941.

The Fulton County Medical Society met at the Crawford W. Long Memorial Hospital, Atlanta, September 15. The program consisted of a symposium on *Health Education for the Lay Public*: *Introductory Remarks* by Dr. Edgar D. Shanks, secretary-treasurer of the Medical Association of Georgia. Titles of health moving pictures shown were as follows: *Let My People Live (Tuberculosis); I Choose to Live (Cancer); Three Counties Against Syphilis; The Life of Edward Jenner; Body Defenses Against Disease.* Dr. Robert B. Schultz, State Department of Public Health, spoke on *Cooperation of the Georgia Department of Public Health with the Medical Association of Georgia and the County Medical Societies in Health Education.* Mrs. Leo Smith, State Department of Public Health, spoke on the *Plan of Distribution of Health Films and Health Education Literature.* Dr. Allen H. Bunce, Dr. Jas. N. Brawner, Dr. Glenville Giddings and Dr. W. A. Selman discussed the pictures and plans for distribution. The Social Planning Council had charge of the program for the meeting held on October 6. Report on the activities and scope of the work of the Council in the community was made. Contributors to the September 15, 1941, issue of The Bulletin of the Fulton County Medical Society included the following: Dr. John B. Fitts, Dr. T. Sterling Claiborne, Dr. R. Hugh Wood, Dr. Clarence L. Laws, Dr. Emmett D. Colvin, all of Atlanta.

The visiting staff of Grady Hospital, Atlanta, met on September 9. Dr. Charles Ward reported two cases, *Stab Wound of the Heart* and *Sub-Diaphragmatic Abscess;* Dr. Fred Cooper reported a case *Traumatic Cyst of Pancreas;* Dr. Cleve Ward. *Aneurysm of Femoral Artery.* Dr. Ira Ferguson is president of the visiting staff and Dr. Paul Elkin is chairman of program committee.

The Robert Winship Clinic at Emory University Hospital holds a tumor conference every Tuesday from 2:00 to 3:00 P.M. All members of the medical profession are invited to attend.

Dr. J. E. Lester, Marietta, spoke before a meeting of the Woman's Auxiliary to the Cobb County Medical Society on *Poliomyelitis* September 2.

Representatives of medical, nursing and health organizations met in the offices of the State Department of Public Health, Atlanta, September 8 to organize the "Emergency Medical Service for Civilian Defense." Among other speakers on the program were: Dr. Ed H. Greene, Atlanta; and Dr. J. E. Lester, Marietta.

Dr. Millard E. Winchester, Brunswick, Glynn County Commissioner of Health, has compiled and published a booklet of 86 pages in which the activities of the Glynn County Board of Health are reported. Titles of subheads include: *Activities of a County Health Department, Glynn County Health Center, The Health of Glynn County, Vital Statistics, Birth Rate, Communicable Diseases, Isolation and Quarantine, Immunization Clinics, Measles, Smallpox, Diphtheria, Scarlet Fever, Whooping Cough, Typhoid Fever, Malaria, Prophylaxis of Malaria, Tuberculosis, Pneumothorax Service, Pneumonia, Cancer Control, Heart Disease, Pellagra, Maternity Hygiene, Infant and Preschool, Public Health Nursing Services, Infant Mortality, Stillbirths, Birth Control, Statistical Report of Public Health Nursing—1940, Health Inspection and Medical Examination of School Children, School Health Service, Follow-up Work, Defects Corrected, School Dental Program, School Lunches, Relief and Health, Negro School Work, Venereal Disease Control, Positive Blood Tests in Negroes by Age Groups in Glynn, Camden and McIntosh Counties, 1937-1938, Sanitation, Milk Supply, Milk and Food Control, Examination of Domestic Servants, Shell Fish Control, Report of Food Inspection, Mosquito Control, Garbage Removal, Laboratory and Laboratory Examinations, Public Health Education, Medical Care as a Public Health Service, Summary of City and County Clinic Service,* and *Visitors.* Dr. Winchester has made a most commendable record as a public health officer which is recognized not only in Georgia but by the U. S. Public Health Service as well.

The Seventh District Medical Society met at the Coosa Country Club, near Rome, on September 24. Names of physicians who read scientific papers follow: Dr. R. D. Walter, Calhoun; Dr. William Harbin, Jr., Rome; and Dr. Chas. E. Rushin, Atlanta. Discussions were led by Dr. R. C. Maddox, Dr. Inman Smith and Dr. Ed. Bosworth, all of Rome; Dr. Van Teem, Dr. M. M. Hagood, of Marietta; Dr. R. N. Little, Summerville; Dr. C. W. Stephenson, Ringgold; Dr. Z. V. Johnston, Calhoun; Dr. S. B. Kitchens, LaFayette. Dr. D. Henry Poer, Atlanta, read a report of the Committee on Hospitals. Members of the Committee on Arrangements were: Dr. Ralph Johnson, chairman; Dr. J. T. McCall, Jr., Dr. Lester Harbin, Dr. Lee Battle and Dr. Warren Gilbert.

Dr. Allen H. Bunce, president of the Medical Association of Georgia; Dr. Joseph C. Read, Dr. H. W. Jernigan, Dr. Geo. W. Fuller, Dr. J. Gaston Gay, Dr. George Eubanks, Dr. Marion C. Pruitt, Dr. S. T. Brown, Dr. J. L. Pittman and Dr. B. T. Beasley, all of Atlanta, were speakers before the Clinical Conference of the Georgia Section of the Southeastern Surgical Congress at Thomasville, September 17.

Dr. C. W. Roberts and Dr. D. Henry Poer, both of Atlanta, were guest speakers on the program of the South Carolina Section of the Southeastern Surgical Congress.

Georgia physicians who attended the post-graduate course in office endocrinology at the University of Georgia School of Medicine, Augusta, the week of September 15-20, were Dr. E. G. Newsome, Sandersville, and Dr. J. T. Persall, McRae. The course was conducted by Dr. Robert B. Greenblatt, Augusta. Other speakers on the program were: Dr. G. Lombard Kelly and Dr. W. J. Cranston, both of Augusta.

Dr. C. W. Strickler, Atlanta, was the principal speaker before the meeting of the Muscogee County Medical Society held at the Ralston Hotel, Columbus, September 22.

THE FULTON COUNTY MEDICAL SOCIETY met in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, October 6. Titles of papers on the scientific program were: *An Improved Vehicle for Medication of the Vagina* by Dr. Geo. A. Williams; discussed by Dr. W. C. Goodpasture and Dr. Fred R. Minnich. *The Use of Sodium Pentothal in Combination with Other Anesthetic Agents*, Dr. Linus J. Miller and Dr. H. S. Phillips; discussed by Dr. T. L. Tidmore and Dr. Chas. E. Lawrence.

THE FIFTH DISTRICT MEDICAL SOCIETY met in the Nurses's Home of the Crawford W. Long Memorial Hospital, Atlanta, October 20. Titles of discussions on the program were: *The Medical Association of Georgia* by Dr. Allen H. Bunce, president of the Medical Association of Georgia; *Address* by Dr. J. A. Redfearn, Albany, president-elect of the Association; *Observations on the Physical Condition of Georgia's Manpower as Revealed by Selective Service*, Dr. Edgar H. Greene; *Public Health Work in Relation to National Defense*, Dr. Louis L. Williams, Jr., Medical Director, U. S. Public Health, Fourth Corps Area; *The Medical School of Oglethorpe University*, Dr. John L. Jacobs, Oglethorpe University, Georgia; *Report of the Committee on Hospitals*, Dr. D. Henry Poer, chairman of the Committee on Hospitals of the Association.

DR. HENRY WILSON DOSTER, Rocky Ford, graduated from the University of Georgia School of Medicine in 1890. Dr. Edward Geddings, dean of the University had a call for a physician to locate at Rocky Ford about the time Dr. Doster graduated; he passed the request on to Dr. Doster and he located there and has practiced in that community for a little more than a half century. When Dr. Doster had practiced at Rocky Ford 50 years, the community gave Dr. and Mrs. Doster a "silver loving cup and a widely attended reception in token of the love and esteem in which the doctor and his wife were held." A short interesting biographical sketch of Dr. Doster was published in *The Georgia Magazine*, Macon, Sunday, September 21, 1941. The early days of his professional career hold many amusing events as well as some of the hazardous undertakings.

DR. WARREN M. GILBERT, Rome, has been designated to conduct physical examinations for the administration of Civil Aeronautics.

DR. B. H. MINCHEW, Waycross, was elected president of the Georgia Association of Industrial Surgeons at the close of its annual meeting at Sea Island, September 27; Dr. J. W. Simmons, Brunswick, vice-president; and Dr. C. F. Holton, Savannah, secretary-treasurer. Speakers on the program included: Dr. Allen H. Bunce, Atlanta, president of the Medical Association of Georgia; Dr. Exum Walker, Atlanta; Dr. Frank Eskridge, Atlanta; Dr. Jos. H. Boland, Atlanta; Dr. R. L. Rhodes, Augusta. Memorial exercises were conducted by Dr. C. F. Holton, Savannah.

THE GEORGIA UROLOGICAL ASSOCIATION met at Hotel Dempsey, Macon, October 9. Titles on the scientific program included the following: *Pyelo-Colic Fistula—Case Report by* Dr. Harold P. McDonald, Atlanta; *Tuberculosis of the Kidney—Case Report*, Dr. Spencer A. Kirkland, Atlanta; *Polycystic Renal Disease—Report of Cases*, Dr. Samuel J. Sinkoe, Atlanta; *Renal Calculi* (paper), Dr. W. F. Reavis and Dr. Lovick W. Pierce, Waycross; discussion was led by Dr. J. Z. Daniel, Augusta.

OBITUARY

Dr. Jarvis Gipson Dean, Dawson; member; New York University Medical College, New York City, 1885; aged 83; died on September 11, 1941. He was born in Harris county and received his early education in Randolph county. Before he studied medicine, he taught school at Shellman and a number of other places in that section. Dr. Dean moved to Dawson in 1885 and was a leading physician of that section for fifty years. He owned and operated the Dawson telephone exchange for a number of years and was one of the first citizens of that section to begin growing asparagus and pecans. He encouraged farmers to diversify their crops. Dr. Dean was interested and active in politics; he was a delegate to the Democratic National Convention held in San Francisco, California, in 1920; and again served as a delegate in 1928 at the convention held in Houston, Texas. For sixteen years he served on the Dawson city council and was mayor in 1931-32 and was a member of the Dawson Board of Education for a number of years. For many years he was local surgeon for the Seaboard Air Line Railway Company and the Central of Georgia Railway. He belonged to the F. & A. M. and Dawson Baptist church and was president of the Medical Association of Georgia, 1916-17. Surviving him are two daughters, Mrs. John Ed Morris, and Mrs. E. C. Paschal, both of Dawson. Rev. R. J. Burgess and Rev. W. H. Ketchum officiated at the funeral services conducted at the home. Burial was in Cedar Hill cemetery.

Dr. George Albert Traylor, Augusta; member; University of Georgia School of Medicine, Augusta, 1904; aged 61; died September 15, 1941, at his home of heart disease. He was a native of Abbeville county, S. C. At the age of 21 he graduated from Furman University, then began the study of medicine. After he graduated in medicine, he took post-graduate courses at Johns Hopkins University School of Medicine, Baltimore; Mayo Clinic, Rochester, Minn.; and enlarged the scope of his study to include work at Breslau and Vienna. Dr. Traylor served in the medical corps of the U. S. Army during the World War. He was a member of the Richmond County Medical Society, Southern Medical Association, American College of Surgeons, and the American Medical Association and for many years a member of the faculty of the University of Georgia School of Medicine; President-Elect of the Medical Association of Georgia, 1936-37; President, 1937-38. He was an aggressive, hard worker, fluent writer, kind and most considerate of every one. Memories of Dr. Traylor will linger with many friends for years. Surviving him are his widow, and one son, James Bothwell Traylor, student at the University of Georgia School of Medicine, Augusta. Rev. R. Paul Caudill officiated at the funeral services

(Continued on page XIV)

How to Use S-M-A Powder

EACH PACKAGE OF S-M-A* CONTAINS ONE MEASURING CUP

1 Empty one tightly packed measuring cup of S-M-A powder into bottle.

2 Add enough warm previously boiled water to make one ounce.

3 Cap bottle and shake powder into solution. Feed at body temperature.

4 Easy, isn't it?

S-M-A READY TO FEED PROVIDES:

● 20 calories to the ounce, but more important, the nutritional value of S-M-A is that of a complete well-balanced food. When prepared as above, each quart provides:

10 mg. Iron and Ammonium Citrate
200 I. U. of vitamin B_1
400 I. U. of vitamin D
7500 I. U. of vitamin A

NORMAL INFANTS RELISH S-M-A—DIGEST IT EASILY AND THRIVE ON IT

*S-M-A, a trade mark of S-M-A Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

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conducted at the home. Members of the Richmond County Medical Society who served as pall bearers were: Dr. H. M. Michel, Dr. H. G. Mealing, Dr. H. P. Harrell and Dr. S. J. Lewis. Burial was in Magnolia cemetery.

Dr. Arthur Clifton Branch, Glennville; member; Tulane University of Louisiana School of Medicine, New Orleans, 1910; aged 58; died September 30, 1941, in a hospital at Jesup. He had practiced in Tattnall and adjoining county for almost 30 years. Dr. Branch was a member of the Tattnall County Medical Society and the Methodist church. Surviving him are his widow, one daughter, Miss Laura Branch of Glennville.

Dr. Roger Ruben Wagoner, Columbus; University of Georgia School of Medicine, Augusta, 1931; aged 43; died September 7, 1941, in his room of heart disease. He moved from Oliver three weeks before his death to Columbus to practice as an anesthetist. He served as an intern in the University Hospital, Augusta, then moved to Oliver. Dr. Wagoner was a veteran of the World War. Surviving him is his widow.

Dr. John Milton Price, Tifton; University of Georgia School of Medicine, Augusta, 1886; aged 83; died on September 18, 1941, in a private hospital at Waycross. He was a native of Cherokee county. Dr. Price received his early education at Dahlonega. He was interested in a drug store and held large farming interests. Dr. Price was a member of the F. & A. M. and the Tifton Baptist church. Surviving him are his widow and two daughters, Mrs. Gene Eidson and Mrs. Albert Martin, both of Tifton. Rev. E. S. Wynn and Rev. O. C. Landrum officiated at the funeral services conducted in the home. Interment was in the Tifton cemetery.

PRESERVED BLOOD PLASMA

The stimulus of war has aroused great interest in substitutes for whole blood, and many intensive investigations are being undertaken in this field both from the laboratory and clinical standpoints. The indications for intravenous administration of blood plasma, such as in shock without hemorrhage, in burns, for administration of antibodies and for the maintenance of plasma protein, and even severe hemorrhage are now rather definite.

The question of sterility in stored plasma has led many investigators to advocate the addition of "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly) in a concentration of 1:10,000 "Merthiolate" has been used for many years for the preservation of vaccines, sera, and other biological products, and has been logically advocated for the preservation of blood plasma. "Merthiolate" substance for the preservation of blood serum and plasma may be added directly, or, more conveniently, from a stock one per cent solution which should be made up fresh every thirty days. "Merthiolate" substance for this purpose is obtainable from the Indianapolis laboratories only.

WATCH FOR COUNTERFEITER

Notice from the Secret Service Department of the United States Government says:

"Look out for Marvin Levinsohn, white male, aged 37, height 69 inches, weight 120, dark brown hair. Occupation x-ray technician.

"This man in the last stages of T.B. and calls on doctors, after which he pays his bill with counterfeit check issued on the Quartermaster Bank of the U. S. Army. He exhibits fake credentials and gives check, getting change."

This man is said to be operating in Georgia at the present time.

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CLINICAL STUDIES OF SECONDARY ANEMIA

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Atlanta

The purpose of this paper is to review the incidence, etiologic factors and other clinical data concerning secondary anemia as seen in the private practice of internal medicine for the past ten years. This study was undertaken to evaluate, in a measure, the relative importance of the problem of secondary anemia as seen in private practice. We propose to review the incidence and degree of secondary anemia in relation to age, sex, and etiologic factors including achlorhydria, basal metabolic rate, chronic blood loss, infections, drugs, pregnancy and gastro-intestinal disease.

The material presented is from the records of 4,644 private patients who presented themselves for examination because of various complaints from 1931 to 1940, inclusive. These patients represent a cross-section of the urban and rural population of this section of the country. In all cases the examination included a history, physical examination and complete blood count, which included red and white blood cell count, hemoglobin and differential count. Other examinations were done as seemed indicated on the individual patient. The hemoglobin concentration was determined with a Sahli* hemoglobinometer and, as Kracke[1] has pointed out, "is the most accurate and reliable criterion as to the degree of anemia regardless of the red blood cell count." There is no uniform value of red blood cells and hemoglobin accepted as distinguishing between normal blood levels and anemia. It is realized that variations in technic may account for rather wide variations in the routine making of blood counts, hence the figures presented here are by no means dogmatic and probably subject to the averages of error. As suggested by Pepper[2] we have selected the arbitrary figures of 4,500,000 red blood cells and a concentration of 85 per cent of hemoglobin as representing the lower limits of normal blood findings.

In table 1 the age incidence, sex and degree of the anemia is summarized. It is to be noted that 2,532 patients had red blood cell counts below 4,500,000 and hemoglobin values below 85 per cent. This, of course, seems a staggering percentage; however, it must be pointed out that these patients represent a cross-section of people consulting the physician because of illness and not a cross-section of people in normal health. These figures have been further divided into three groups: those patients whose red cell counts ranged from 3,500,000 to 4,500,000 and whose hemoglobin values varied from 70 to 85 per cent were classed as having moderate or border line anemia and numbered 1,858. Those patients whose red cells varied from 2,500,000 to 3,500,000 with hemoglobin values of 50 to 70 per cent were considered as having definite or marked anemia and numbered 523 while those whose red cells numbered less than 2,500,000 with hemoglobin values less than 50 per cent were considered to have severe anemia and numbered 96. From the above figures it can be seen that 619 out of 4,644 patients or approximately 13.4 per cent had marked to severe anemia while 1,858 or 40 per cent had mild to border line anemia.

*Standardization: 17 grams of hemoglobin equivalent to 100 per cent.

Read before the Medical Association of Georgia, Macon, May 14, 1941.

		Sex		Hemoglobin Range					
Age in Years	Number of Cases	Male	Female	Below 50	50-59	60-69	70-79	80-85	85 and above
0-9	32	20	12			16	12	4	
10-19	226	48	178	6	12	32	96	78	2
20-29	547	92	455	26	20	101	260	136	4
30-39	571	84	487	14	32	68	268	172	17
40-49	489	76	413	28	28	87	184	148	14
50-59	365	92	273	12	16	44	180	104	9
60-69	265	64	192	10	4	43	108	84	7
70-79	42	12	30	0	4	12	20	4	2
80-89	4	4	0	0	0	4	0	0	0

Hypochromia occurred in 1,816 of the 2,532 patients who had anemia, the color index being less than 0.8 while hyperchromia with a color index above 1 occurred in 52 patients. The relationship of anemia to sex seems particularly significant as 2,040 of those with anemia were females while 492 were males, a ratio of 4 to 1. Futhermore, 1,420 of the 2,040 females were in the active menstrual and reproductive period of life. The incidence of anemia in relation to age revealed that 1,616 of the patients were between 20 and 50 years of age, 236 were not yet 20 and 616 were more than 50.

Etiologic Factors

In reviewing the charts we made a particular effort to determine the outstanding etiologic factor in as many cases as possible. In many instances the cause was obscure and in most cases multiple etiologic factors seemed present. Inadequate diet was unquestionably a causative factor in many cases. However, we were unable to determine with any degree of accuracy the number of cases of nutrition anemia seen. Weight is not a reliable index, nor does it necessarily follow that an individual will eat a balanced and adequate diet from a table bountifully served.

The following factors seemed most important occurring either singly or in combination. Achlorhydria was present in 84 patients. However, gastric analysis was not done on all the cases reviewed. The basal metabolic rate was above plus 20 in 88 patients and below minus 10 in 304. Sources of chronic blood loss were searched for with particular care. Hemorrhoids sufficiently developed to constitute a chronic source of blood loss were noted in 336 patients. In all probability this figure is too conservative, as hemorrhoids may vary in severity and probably were not noted in the history since rectal examinations were not done on all cases. There were 16 bleeding gastric or duodenal ulcers while the total number of gastric and duodenal ulcers discovered by the x-ray numbered 128. Ulcerative lesions of the colon, including ulcerative colitis, amebiasis and polyposis were noted in 72 patients. Excessive blood loss at the menstrual time was noted in 76 women. As pointed out by Sturgis[3] many women lose excessive quantities of blood during the menstrual period without being aware of it. Only 24 cases of anemia in pregnancy were seen, as this work is referred by us and we seldom see patients regularly during pregnancy. Malignancy as a cause of anemia is not included in this study as so many of those were seen late in the disease and the lesions were metastatic in character and obvious. Acute and chronic infections have long been known to leave anemia in their wake. Forty patients with undulant fever were anemic while 188 patients with gallbladder disease had secondary anemia. There were 632 miscellaneous infections in which secondary anemia occurred. Secondary anemia occurred in 40 cases in which sulfanilamide derivatives had been given, but we are by no means certain that the anemia could be attributed entirely to the drug.

Discussion

Our approach in the study of this subject is somewhat different from any that has been made. A proportionate percentage of

urban and rural people from all economic levels of life is represented in this group with a marked predominance of the "middle class." The presence of secondary anemia in 54 per cent of so large a group of patients would seem to indicate that the condition is relatively common and presents a clinical problem of some importance. Sturgis[3] has pointed out that iron deficiency anemias "are important not because they produce fatalities per se, but as anyone familiar with their clinical picture can readily testify, they contribute greatly to a diminished efficiency, a loss of a sense of well being, decreased resistance to infection and in general play a significant role in contributing to the disability and the misery of mankind." Davidson, Fullerton and Campbell[4] reported observations on the hemoglobin levels of 3,500 from the poor of Scotland. Anemia was found in 41 per cent of infants under 2 years, 32 per cent of pre-school children, 2 per cent of school children, 16 per cent of adolescent women and 45 per cent of adult women. They state that anemia was absent in adolescent and adult males except in association with organic disease. However, our study differs in that the subjects they examined had no symptoms of ill health but rather were volunteers obtained through various channels while our study was made on patients consulting the doctor because of ill health.

The most prevalent type of anemia encountered in this survey was the hypochromic type in which the red blood cells contain subnormal amounts of hemoglobin, giving rise to a low color index. The color index was below 0.8 in 72 per cent of the patients and above 1 in only 2 per cent, while in 26 per cent the color index varied from 0.8 to 1.

Kracke[1] states that 90 to 95 per cent of the anemic states are hypochromic in type. During the past few years the knowledge of iron metabolism and its relation to blood formation has been greatly clarified and it is generally agreed that hypochromic anemias are in reality iron deficiency anemias and result from a lack of available iron in the body. The available iron in the body comes from several sources: (1) that absorbed from the gastro-intestinal tract, (2) that derived from the destruction of red blood cells, and (3) that derived from storage depots such as the liver, spleen and lymph nodes. Moore[5] states that iron is transported as plasma iron from which the bone marrow withdraws iron for hemoglobin synthesis. Sturgis[3] states that "80 per cent of iron in the body is contained in the circulating hemoglobin." The continued loss of blood produces a negative iron balance as "blood loss means iron loss." Hence, it can be seen that a number of circumstances may affect the quantity of available iron in the body, such as blood loss, deficient iron absorption from the alimentary tract, increased demands for iron, reduced intake of iron and any circumstance which would disturb the synthesis of hemoglobin by the bone marrow. Only about 50 per cent of iron in food is available for absorption "when ingested iron reaches the stomach the free hydrochloric acid normally present delays the formation of insoluble iron compounds, dissolves the iron not already in solution and ionizes that part not already in an ionized state. Since insoluble and undissociated iron compounds tend to form at a pH above 5, absorption might be expected to be less effectively accomplished in patients with achlorhydria."[6] Doan[7] states that "iron by mouth does not produce a transitory increase in plasma iron of the same magnitude in the achlorhydric patient as in the normal individual." The alkaline duodenal juice reduces trivalent iron to bivalent or ferrous iron in which form it is absorbed into the blood plasma for utilization in the body. It has been shown that iron is absorbed largely from the duodenum and upper part of the small intestines. Doan[7] suggests a motor factor in addition to secretory deficiencies as a part of the mechanism which may condition blood cell maturation. In conditions producing hypermotility of the stomach and intestinal tract with the resultant rapid passage of food through the stomach and small intestines it can be seen that iron absorption might be impaired.

Our studies verify the fact that secon-

dary anemia occurs far more frequently in females than males, the ratio being more than 4 to 1. The relationship of anemia in females during the menstrual and childbearing period of life seems suggestive as 70 per cent of the females studied were in this age group.

Chronic blood loss was the most frequent etiologic factor encountered and probably constitutes the basic factor in all iron deficiency anemias. Unquestionably in most of our cases multiple factors were operating. The most frequent source of chronic blood loss probably has to do with the menstrual function. Only 76 women complained of menorrhagia or metrorrhagia; but 70 per cent of the women with anemia were in the menstrual and reproductive age. Next in importance as a source of chronic blood loss ranked hemorrhoids with 336 patients in whom blood loss could be attributed to their presence and extent. Then followed gastric and duodenal ulcers and ulcerative lesions of the colon. Examination of the stool for occult blood was not included in this study as unquestionably many of the patients on whom positive tests were obtained had not taken the necessary meat free diet preceding the test. Hence, we were afraid the results might be misleading.

It is a well established fact that anemia may accompany acute and chronic infections. In our group of cases acute and chronic infections were present in 960 out of 2,532. Various explanations have been offered as to the mechanism producing anemia in infections. Increased destruction or hemolysis of red blood cells may occur. Deficient formation of red blood cells may result from the depressing effects of the toxins from infection. Impairment of appetite with diminished food intake and poor absorption of food from the alimentary tract may cause deficiency states.

Attention has been called to the fact that sulfanilamide and its related compounds may rapidly produce anemia. Secondary anemia was encountered in 40 patients who had taken sulfanilamide or one of its derivatives. However, we do not know that the drug was responsible for the anemia in all cases as the drug was given for infection in all cases and in other cases sources of chronic blood loss were present. In one case the hemoglobin dropped from 15 grams to 10 grams in two days and unquestionably resulted from the administration of the drug. Finally, secondary anemia was noted in 24 cases of pregnancy. In a recent review of this subject, Sturgis[3] reports that 54 per cent of pregnant women admitted to the University of Michigan Hospital had a pathologic anemia. Two types of anemia occur in pregnancy. Hypochromic microcytic or simple iron deficiency anemia which responds readily to iron medication is by far the type most frequently encountered in pregnancy. Macrocytic anemia which has been described as the pernicious anemia of pregnancy occurs much less frequently. It is similar to pernicious anemia in many respects and subsides spontaneously after the termination of pregnancy. The cause of this type of anemia in pregnancy has been attributed to an inadequate amount of protein in the diet and can be prevented by giving 80 to 100 grains of protein daily. Liver extract may be helpful also in its treatment.

Conclusions

1. Secondary anemia occurred in 2,532 out of 4,644 private patients who presented themselves for examination between 1931 and 1940, inclusive, an incidence of 54.4 per cent. Mild to moderate anemia was present in 40 per cent, while marked to severe anemia occurred in 619 or 13.4 per cent of the cases reviewed.

2. These studies suggest that secondary anemia is relatively common and presents a clinical problem of some importance.

3. Iron deficiency as shown by hypochromia occurred in 72 per cent of the cases.

4. Secondary anemia was a disease of females in the ratio of 4 to 1 in this series of cases.

5. Etiologic factors included chronic blood loss, poor diet, gastric anacidity, hypothyroidism, pregnancy, chronic infections and drugs.

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Discussion on Paper of Doctors Bunce, Dougherty and Davis.

Dr. Shelton P. Sanford (Savannah): Dr. Dougherty and his collaborators have called to our attention a very common condition which often taxes our ingenuity to find a cause and cure.

Iron deficient anemia is usually secondary to a chronic blood loss. The blood loss from excessive menstrual flow or bleeding hemorrhoids can persist over a long period without producing a low hemoglobin. The blood production may prevent this for a long time. When appreciable reduction in hemoglobin has taken place, serious damage has already been done, often irreparable.

Our efforts should be directed to finding these sources of blood loss before a state of decompensation has developed. We often wait until the patient has become prematurely old by allowing blood loss to continue.

It is rather a surprise that intestinal parasites were not found an important cause of this condition. In some districts the small blood loss from hookworm infection is a frequent cause of anemia. We should not wait for chronic reduction in hemoglobin to take place to correct this condition. I disagree with authorities who think hookworm infection should not be treated unless it produces anemia. I do not think this is the proper attitude to take. Patients with hookworm infestation, however slight, should be treated until free of the disease. We should not wait until this extra burden has exhausted the patient and an uncompensated anemia has developed.

In addition to these well recognized conditions there is still another which I will call climatic anemia. Some think this is due to malaria, some hookworm infection. You have seen them and you know the condition, but what treatment can you offer that is effective? It is an anemia with low color index. The patients have a yellow appearance, yet do not have jaundice. No abnormal blood loss can be demonstrated. It is benefited by iron but not cured. They suffer continuously with low hemoglobin in spite of all our efforts.

The physician who devises a satisfactory treatment for this wide spread disease will have rendered a great service to medicine.

Dr. Lee Howard (Savannah): Dr. Dougherty and his coworkers have collected much valuable data to add to our working knowledge of the anaemias.

One point that I wish to stress is that iron therapy should be thought of as a corrective and not a cure. From my laboratory blood rechecks, I find that many cases respond rapidly to adequate iron therapy but return after a period of months or years with a recurrence of their anaemia. Too often we may think of the restoration of iron blood balance as curative, instead of corrective and the primary cause of the anaemia may be missed. Even for Dr. Dougherty's first large group of mild hypochromic anaemias, there may be some obvious primary etiology. A majority of all anaemias fall into the large hypochromic group, and regardless of etiology, there will be response to adequate iron therapy. We should try to find out why there is a blood iron deficiency in every case. Iron is always indicated when there is a minus Color Index, and is an essential replacement corrective, but not to be thought of as a certain cure for any case of anaemia.

Dr. Justin Andrews (Atlanta): It is an honor to be invited to discuss this splendid paper.

I would like to supplement its contents and the remarks of the first discussant concerning hookworm and secondary anemia which are frequently associated.

During the last eighteen months, the emphasis of the statewide anti-hookworm program has shifted from the discovery and treatment of egg-positive white school children to (1) the identification by quantitative technique of that minority of families in endemic areas in which the majority of the cases of hookworm disease occur, (2) the provision of approved domestic sanitation, (3) the improvement of dietaries, and, lastly, treatment for removal of hookworms and the restoration of normal hemoglobin levels.

The pathologic damage caused by hookworms is secondary anemia. Hookworms live in the bowels and consume blood from the lining twenty-four hours per day. Most of the blood removed is not used for food but is excreted by the worm into the lumen of the intestine from which it cannot be reabsorbed by the host. The amount of blood loss and consequent anemia, first of all, is proportioned to the number of worms present. Each hookworm consumes from one to two minims of blood per day. Ten hookworms would consume ten times as much; one hundred one hundred times as much and so on. The second factor in determining the intensity of the anemia is the nutritive status of the individual because on this depends the extent of blood restoration. Other conditions, such as intercurrent infections leading to chronic blood loss or interference with blood formation, may, of course, aggravate the picture.

In our search for highly parasitized families, we are brought face to face with many cases of advanced secondary anemia, particularly in the southeast quadrant of the State. It is hard to believe some of the things we have found. Some of the members of these families

have hemoglobins of less than three grams and are practically bedridden. They have all the physical signs of anemia including visible pulsation at the base of the neck and tremendous cardiac dilation. That this is secondary anemia is demonstrated by the fact that they yield so readily to simple iron therapy. Individuals with less than five grams of hemoglobin are usually in critical condition and we consider it expedient, preliminary to hookworm treatment, to put these children and adults back into better physical condition by giving them iron before they are actually relieved of their hookworms.

Dr. Cleveland Thompson (Millen): Of the patients admitted to my services in middle east Georgia it is rare to find one whose hemoglobin is above 70 per cent. Exceptionally do we find one whose hemoglobin is 100 per cent. Of the patients attending the prenatal clinic in Jenkins County only two have been found with a hemoglobin above 60 per cent, and theirs were 61 and 62 respectively. Many of them are found as low as 30 odd per cent. In that section of the country there seems to be a mass deficiency of iron; and it has not had the recognition that it deserves. Many of these individuals with hypochromic anemia respond very poorly to iron therapy and some improve very little. Their hemoglobin seems to be at a fixed level. What can be done to augment an increased hemoglobin production in these patients?

Dr. Mark S. Dougherty, Jr. (Atlanta): I wish to thank the gentlemen for their discussion.

In answer to Doctor Thompson's question, it is necessary to determine the specific type of anemia in the individual. The types of anemia seen in pregnancy are hypochromic or iron deficiency anemia and macrocytic or the so-called pernicious anemia, or possibly a combination of the two. The first is due entirely to a deficiency of iron intake, while the second, or pernicious anemia of pregnancy, is due to an inadequate amount of protein in the diet and responds to a high protein diet. If the patient has a source of chronic blood loss it may be necessary to supplement the high protein diet with iron by mouth. Also in some of the macrocytic anemias in pregnancy it is necessary to use liver extract to obtain the maximum response of blood formation.

The 248 colleges and universities having modern tuberculosis programs have abandoned the ancient concept of "consumption"—the advanced, serious, contagious, often hopeless stage of tuberculosis. They know early tuberculosis as a sneaking foe that can be discovered long before it causes actual illness. They know that the tuberculin test and the X-ray locate cases early, whereas to await symptoms and stethoscopic findings is to mark time until late manifestations occur. They know that tuberculosis remains chief cause of death in the college age group. They know that at least one-quarter of American college students are infected, as shown by their positive tuberculin reactions. Charles E. Lyght, M.D., Chairman, Tuberculosis Comm., Amer. Student Health Assn., in a letter to college presidents, 1941.

The Medical Association of Georgia will meet in Bon Air Hotel, Augusta, April 28—May 1, 1942.

AIR EMBOLISM

Report of two Cases

J. G. McDANIEL, M.D.
Atlanta

Few people who have received intravenous medication of one kind or another have escaped having air injected into their veins, the amount usually ranges from one small bubble to 1 c.c.—the patient suffers no ill effects. If, however, air in large amounts enters the vascular system death may come with dramatic suddenness. What happens is that as soon as the air enters the right heart and efforts are made to expel it, the consequent churning forms a bloody foam and as such does not readily pass through the pulmonary alveoli, which means that if there is a large amount of air, the right heart not only fails to push a normal amount of venous blood through the pulmonary artery, but itself, deprived of liquid blood to act on, commences fibrillating. This associated with the partial obstruction to blood flow and the ensuing shock brings about early death.

Experimentally it has been shown that various amounts of air can be injected into animals before death ensues. Richardson, Colls and Hall[1] were able to inject into the femoral vein of a dog 3,910 c.c. of air over a period of 87 hours at a slow rate before death. On the other hand, Harkins and Harmon[2] injected likewise as little as 3.6 c.c. per pound body weight into a dog with fatal results. Wolffe and Robertson[3], experimenting with rabbits, concluded that the lethal dose was 0.25 c.c. per pound body weight. These experiments would therefore indicate that fateful doses of air vary in the same kind of animals and in different animals.

For a long time it has been known that operations and traumatic wounds of the neck carried with them the danger of air embolism. It has only been in recent years, however, that other cases have been reported with some degree of frequency. Mathé[4] in 1929 had a fatal massive air

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embolism from injecting 300 cc. of air into the bladder. Hamilton[5], in 1936, reported one case and Deadman[6], reported four cases of sudden death from air embolism immediately following attempted criminal abortion. These patients themselves attempted to irrigate the uterus with a medicated solution using an enema syringe. Evidently they forced some air into the uterus. Stroh[7] and Olinger, in 1938, reported the sudden collapse and death from air embolism in a woman who on the seventh day after a normal spontaneous delivery assumed a knee chest position. Osborne and Dawson[8] in 1938 reported a fatal case following cesarean section and one following a normal spontaneous delivery of a primipara. The above cases were proven at autopsy.

Of the two cases reported here, the second will be given in detail since no other reported case could be found that lived long enough to have any definite train of symptoms.

Report of Cases

Case 1. (courtesy of Dr. Wm. Perrin Nicolson) A. L., white male, aged 25, was brought to St. Joseph's Infirmary, Atlanta, on the night of Jan. 1, 1941. He had been in a rather severe automobile accident, had suffered several abrasions and lacerations and was in shock. The patient was admitted, was given several blood transfusions, supportive treatment and responded nicely. He was dismissed on the twelfth hospital day. Two days later, against the doctor's orders, he was in the bathroom shaving and was seized with sudden upper abdominal pain, fainted and was immediately carried back to the hospital. He was upon arrival found to be in shock and to have abdominal rigidity. After treating him for 24 hours he responded sufficiently for Dr. Nicolson to perform an exploratory laparotomy. Upon opening the abdomen he found free blood in the peritoneal cavity and bleeding from a traumatized and lacerated spleen. Evidently his spleen was injured in the accident, but little or no hemorrhage had taken place until he exerted himself in the bathroom. The spleen was removed without difficulty and the patient survived the operation well until the skin sutures were being put in. He died suddenly.

Synopsis of Autopsy by Dr. John Funke. The patient revealed no evidence of pathologic changes except that the vena cava, right heart and pulmonary artery contained a large quantity of air. Cause of death: massive air embolism in the right heart and pulmonary artery.

Case 2. A young married white female, aged 24, was first seen by Dr. W. B. Davis on the night of Nov. 26, 1940. She complained of lower abdominal cramping associated with slight bleeding from the vagina and the passage of clots. Her history was she had missed two menstrual periods and that two days before she had started to menstruate and pass some large clots of blood. She had been up and down in the bed until today. This day she had felt good, having gone so far as to clean house and move some furniture but had commenced cramping again that night. Dr. Davis' examination was essentially negative except the patient's temperature by mouth was 99.5 degrees Fahrenheit, the pulse rate 90, and slight tenderness in the lower abdomen and some vaginal spotting. He prescribed some ergotrate tablets and aspirin and codeine if necessary for pain.

The next morning about eleven o'clock she commenced to feel fainty and complained of paralysis in her legs. One of the relatives notified Dr. Davis of this condition, and he suggested that she be given some ammonia and that he would see her within an hour. At about 12:30 P. M. he found her in a desperate condition; she was pulseless, pallid, restless, breathing rapidly and complaining of pain and numbness in her legs. Realizing the seriousness of the condition, he gave 1/3 gr. pantopon, called for an ambulance and sent her to Crawford W. Long Hospital asking me to meet her there. On the way to the hospital he learned that she had been to a criminal abortionist four days before, who had inserted some kind of instrument into the uterus and told her that she would miscarry within a few days.

At the hospital the foot of her bed was elevated, external heat was applied, 1,000 c.c. of 5 per cent glucose in saline started intravenously, some adrenal cortex and 1/6 gr. pantopon given. On examination one was impressed by her ashy-gray cyanosis, the purposeless flailing of her arms, the rapid deep respirations, the immobility of her legs, and the marked extension of her feet. She answered questions intelligently and complained of increasing pain in her legs and inability to move her legs. Her radial pulse was absent, her extremities were cold, the feet and legs were in marked extension and could not be moved, and the muscles were firm. The chest was hyperresonant, respirations were free and equal on both sides, they were deep and rapid upon auscultation one could hear nothing save the inrush and outrush of air. The heart was almost fibrillating, rate about 170 per minute. The abdomen was flat, no rigidity was present, there was slight tenderness in the lower quadrants, no palpable abnormal masses. There was no active bleeding from the vagina although the pad she wore was stained. No unusual odor could be detected from the vagina. About one hour after she had been in the hospital we gave her some blood plasma intravenously. It was noted here that in spite of the glucose and saline container having a five-foot elevation and a large needle in the vein, the solution ran in slowly. The same difficulty was experienced with the blood plasma. The patient, as time went on, seemed to grow weaker and since no veins could be found in her feet and legs, we cut down on the vein in the arm and found it bloodless, the vein was simply collapsed. A rather large cannula was

inserted and even then with a five-foot elevation for the plasma, the slowness of the flow was exasperating.

After three hours in the hospital, or five hours since she first felt fainty, the patient had received 750 c.c. glucose and saline, 150 c.c. blood plasma, some adrenal cortex, oxygen; and a considerable quantity of fruit juice and water by mouth, which she enjoyed. In looking again at this time for veins in her feet and legs to afford another entry for some blood plasma it was discovered that her legs had a mottled appearance and that there was a distinct crepitation of air in her right ankle extending half way her calf. We watched the progress of the air, first right leg, then the left leg, the buttocks, then she commenced complaining of pain and numbness in her arms, the same she said that had been in her legs, her right hand commenced to flex and on careful palpation crepitation could be detected in the arms. By this time our intravenous solutions ceased flowing altogether. There was air in all the tissues of the body except the neck and head. Her body was mottled throughout, she was conscious until about five minutes before her death. The heart simply stopped beating.

Synopsis of Autopsy by Dr. Francis Parker (one hour after death). There was crepitation on palpation of the skin extending from the soles of her feet, both anteriorly and posteriorly, to the level of her ears. No edema was present. The lungs were large and voluminous, light pinkish-white in color and overdistended; they had a light frothy feel. The heart was considerably distended, particularly the right side. All vessels on the surface of the heart were filled with fine bubbles of air. The right ventricle was opened *in situ;* there was a marked escape of air and it collapsed like a punctured balloon. There was very little blood present. Other cavities showed a similar condition. There was no gross abnormality of the valve structure or musculature. There were large amounts of air under all peritoneal surfaces covering the anterior and posterior abdominal walls. Air escaped from the cut surface of the liver and the kidneys. The uterus was a pregnant one of about two months; the fetus was absent, the placenta traumatized. The uterine wall in the region of the right cornu was quite thin in relation to the remainder of the uterus and gave the appearance of having been scraped away from the inner surface. The large venous sinuses were open and when pressure was made on the uterus they exuded air bubbles. Cause of death: massive air embolism following criminal abortion.

Comment

The first case presents the usual story. Air had probably entered the venous circulation through the traumatized spleen soon after the abdomen was opened and continued to do so in all probability until the spleen was removed. The heart made repeated efforts to expel it, failed and death promptly ensued from mechanical obstruction and shock.

Case 2 presents a series of unusual occurrences. This lady evidently received her first dose of air about six hours before death when she first felt fainty and lost use of her legs. Air was getting into her uterus and the large uterine sinuses were sucking it into the circulation the same as the little suction pump that we attach to a water faucet. Of interest is that her legs were affected so soon. Dr. Parker[9] has suggested that this might be explained similar to caisson disease in that the blood was able to absorb a goodly amount of nitrogen and deposit it in the tissues. This seems to be one of the best explanations of this case. It would seem that if the blood takes up nitrogen from the alveolar spaces under heavy atmospheric pressure as in a diving bell or deep in a mine, it would likewise be capable of doing the same thing if it were in direct contact with nitrogen under pressure in the pulmonary artery, and probably be so heavily laden that it could not give it all up as it passed through the lungs, so that blood containing nitrogen would pass to the left heart and on through the arterial system to be deposited into the tissues. As this vicious circle continued with more and more air coming in from the ovarian vein, the pressure inside the body would increase to saturation while the outside remained the same. This would be analagous to a diver leaving his bell too soon with subsequent giddiness, "bends", paralysis and the formation of air bubbles. This frothy mixture of blood and air, generally present in the right heart and pulmonary artery, acts as a partial mechanical blockage since it cannot quickly pass on through the lungs. If the amount of air is large and is taken in rather quickly, as in the first case, one gets obstruction to blood flow in the right heart and pulmonary artery, fibrillation of the heart, shock and immediate death. If, on the contrary, air enters at intervals or in a small steady stream, it might be handled over a period of hours before a fatal ending.

The great question, of course, is what to do for these patients. Obviously there is little in those dying suddenly. In patients who give warning of what is happening, the first thing to do is stop the inflow of air.

If we had realized what was happening in the second case, it would certainly have been of value to have packed the vagina tightly with vaseline gauze. The next step would be to get some fluid into the right heart, if as in our case, the saline and plasma was slow about running in, then it should be forced by using multiple syringes, the reasoning being: that if the patient is in shock and the froth in the right ventricle has the blood flow partially blocked one has not only a decrease in blood volume but a decrease of any driving force in the arterial system, since the left heart cannot get the blood. It would, therefore, seem that one must come to the assistance of the heart and force in at frequent intervals small amounts of some fluid, preferably blood plasma, to give the heart something to work on. If in spite of this, the patient grows weaker and death seems inevitable, one might attempt aspiration of the right ventricle at the same time he forced in fluid through the vein. This procedure might be tried in those patients who die rather suddenly if a definite diagnosis could be determined. Should the theory that this is akin to caisson disease be correct then it would be ideal after checking the influx of air to put the patient into a pressure chamber, since under heavy atmosphere pressure the tissues reabsorb the nitrogen bubbles,[10] decompression could then be done slowly enough to permit the excess nitrogen to escape through the lung.

Summary

Cases of air embolism are being reported more frequently in recent years; they are generally associated with a uterus that has recently been pregnant.

Two fatal cases have been reported, one following splenectomy for trauma of the spleen; another following criminal abortion.

That there is a similarity in the second case and caisson disease has been discussed.

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Discussion on Paper of Dr. J. G. McDaniel

Dr. Francis P. Parker (Emory University): This case was of great interest to me because we have read in the past of such occurrences but this was the first one I ever actually encountered. Obviously, if a patient is to be saved, it is necessary to have a pretty good idea what is going on and promptly institute the proper procedure. Packing, as Dr. McDaniel has suggested, would probably have been the best procedure as soon as this young woman entered the hospital, if anyone had had any idea what the situation was. The relationship to caisson disease would lead us to the possibility of helping these patients by putting them into a pressure chamber, if such were available. If it were possible to institute such pressure on the outer surface of the body, it might be that the air which is present in the blood stream could be made to go into solution and by gradually reducing the pressure of air, to come out slowly until it has all escaped from the alveolar area.

Cramping and paralysis of the legs were the outstanding early features in this case. Any individual on whom an abortion has been done or an individual who has recently been delivered, who has an onest of such symptoms should make one consider at least the possibility of onset of air embolism.

Death in these instances comes as a result of one or two things. First of all, the displacement of blood from the vascular system, by air which can not be utilized to carry oxygen to the tissues, results in generalized anoxemia and anemia. Most patients die of cerebral anemia. This patient was placed in Trendelenburg position and most of the air went to her feet first and finally to the brain which contained less air than other tissues. This is probably why she remained rational. Second, heart failure is a large feature in the death here. The heart fails more quickly if it has nothing to pump against than if it has too much. As soon as the blood in the chambers of the heart is displaced by air, the heart has nothing but air to pump, so it fails. There is usually fibrillation. This patient died primarily of heart failure.

The administration of sulfanilamide during pregnancy is not without danger to the baby because of the rapidly attained similarity of levels of the drug in the blood of the mother and the fetus, George P. Heckel, M.D., Rochester, N. Y., reports in *The Journal of the American Medical Association* for October 18.

This warning is based on the findings in 13 mothers who received sulfanilamide or its derivatives during pregnancy. A severe anemia in the infant of 1 of them at birth suggests fetal injury from sulfanilamide, the author states. However, unless an infant is unusually sensitive to sulfanilamide there is little likelihood of any injury from the amounts of the drug obtained in the milk from the mother.

THE SO-CALLED PSYCHOPATHIC PERSONALITY

With Special Emphasis on His Status in the Selective Service

HERVEY CLECKLEY, M.D.
Augusta

At this time of stress and uncertainty in the existence of our nation the writer feels especially justified in calling the attention of this body to the problem of the psychopath. In our present efforts to prepare for national defense no problem which confronts the examining boards for selective service is more pressing or more subtle than that of the so-called psychopathic personality. It is well recognized that our armed forces, girding the nation for what will perhaps be the greatest trial in our history, want to avoid the impediment of defective personnel. Our medical examiners have been specifically warned not to accept men suffering from personality disorders and the handicaps imposed on our national effort by inadequately integrated personalities have been forcefully emphasized.[1]

The candidate with evidence of hysteria, of neurasthenia, of psychasthenia or of anxiety neurosis can often be recognized by the general medical examiners on our boards. The incipient cases of schizophrenia, the cyclothymic personalities who under stress would be likely to develop manic-depressive disorders, and other types of potential or early psychosis can also usually be detected, if not by the general medical man, then by the psychiatric consultants on our advisory boards.[2] We do not mean to minimize the importance of such problems; for it is plain that these personalities would be likely to fail under the severe trials and the exacting demands of warfare as it is being practiced today. It is maintained, however, that the so-called psychopathic personality is not only fully as poor material to be trusted with our national defense as the potential schizophrenic but that he is infinitely more difficult to recognize during an ordinary interview, or even during a psychiatric examination.

Let us consider two questions which rather obviously present themselves: (1) Why is the so-called psychopathic personality so difficult to recognize? And (2) Why is it a matter of great importance for him to be recognized and to be kept out of our armed forces?

In dealing with the first of these questions we find that during the psychiatric examination candidates suffering from this personality disorder show none of the symptoms, mental or physical, by which the general practitioner recognizes other personality disorders. Nor does he, during an interview, usually evince signs that would make an experienced psychiatrist suspicious. We see an alert, composed man usually better poised than the average and entirely free from delusions, ideas of reference, scattering of thought, flight of ideas, psychomotor restlessness, euphoria, grimaces, mannerisms, peculiar postures, thought-blocking and from all the other characteristics that would suggest a psychosis. When asked if he hears voices such a person will be as amused as would any man in this body. There is nothing about him that seems *queer* or *peculiar*, but on the contrary he often gives an excellent account of himself and impresses even the experienced psychiatrist as a stable, sociable, and well-integrated personality. As one directs the questioning to appraise his general knowledge, his reasoning capacities and his ingenuity, one is usually impressed by his cleverness and often by his apparent learning. It is plain that one is not dealing with a mental defective; and often it is equally plain that one is dealing with a person who, by ordinary standards of measurement, could not be called less than superior in intellect. We seldom find that he shows tenseness or anxiety. Nor is he often concerned with his body functions or worried about the presence of non-existent diseases or disorders within. He is often a little boastful

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Read before the Medical Association of Georgia, Macon, April 14, 1941.

and self-confident, but from what we have seen of him during the interview this scarcely seems unjustified. Not infrequently he will appear quite modest, or at least give the impression that he is a man who would prefer to regard himself modestly despite an awareness of his extraordinary charm and ability. We cannot but conclude that he is entirely free from all signs of the listed psychoses, that he shows less evidence of a psychoneurosis than the average man and that he is a clever, agreeable fellow who would probably succeed in almost any career. He may admit drinking, occasionally to excess, or having been involved in minor troubles and indiscretions. If so, the examiner will be inclined, like the subject himself, to attribute such lapses to high natural spirits and to feel that a person blessed, apparently, with such good insight and judgment will be able to keep himself out of difficulty in the future.[3]

Why, one might ask, should it be necessary to avoid selecting such a man as this for a rôle in our national defense? Why do we say he is suffering from a personality disorder? And what sort of disorder could permit a person to maintain such an excellent appearance of mental health?

In order to answer convincingly the first two of these questions we need undertake no excursion into psychopathology much less into the ultimate philosophic and biologic backgrounds whence problems of personality functioning lead. We only need to have a history. If we can become acquainted with the behavior of our subject, with a longitudinal section of his life as contrasted with the cross-section we meet in the interview, if we can see how he has lived in contrast with how he is able to express himself, then we see that we are dealing with a man grossly unfitted for life.

We find, to take a typical history, that in the last five years he has obtained and rapidly lost twenty-six good positions in various businesses. He has impressed his employers, succeeded easily, often brilliantly; but no less surely he has, as it seems, willfully gone out of his way to achieve failure. While making, for instance $500 per month as a salesman he has reduced prices, without consulting his superiors, to a figure below costs and sold thousands of dollars worth of produce at a loss to his company. Again while succeeding in a bank he has come to work one morning fantastically drunk, filched fifty dollars from deposits to pay for a long distance telephone call across the continent to a girl he once casually met at a fraternity dance and, when questioned by the president of the bank, burst out in obscene but pointless raillery and spat on his superior's foot. His friends and relatives have found it necessary to bring him in scores of times each year from remote cornfields where it is his custom to lie out drinking alone, apparently without purpose and certainly without gaiety or merriment. While protesting his high romantic passion and his indefatigable devotion for his estranged wife he goes out to low public brothels, sometimes informing his wife of his whereabouts, and, not infrequently, drinks himself into snoring stupor or maudlin impotence before even achieving what presumably were his aims. He has written dozens of bad checks, cheated not only his succoring friends but even his partners in petty swindles and has carried out such acts when detection was obvious and certain. Unlike the ordinary criminal he does not seem to work toward any end and he throws away any gains or advantages he has achieved by sharp practice as surely as he does ordinary transient successes.[4]

He has been given innumerable new opportunities. He always seems promising and his expressed intentions to change his ways are astonishingly convincing. Each time, however, he fails, not apparently through any discernible inability or through any comprehensible temptation to err, but as if he deliberately and directly sought misfortune. Neither his own interests, as judged from ordinary viewpoints, nor the shame, hardships and sufferings of his wife, children or parents seem to influence his career.

When questioned about his repeated failures and his spectacular follies he expresses

remorse eloquently and seems to understand thoroughly the useless absurdity of his former ways. He seems to have perfect insight and those who have not known him long or who have not seen many like him will feel sure that he has learned his lesson. Despite the convincing manner in which he can present his case, his further actions demonstrate even more convincingly that, in a true sense, he has learned nothing at all by his experiences. No matter what good advice is given him, how genuine seems his acceptance of advice. or what hardships or punishments overtake him, he continues repeating the very uninviting follies that brought him to jail in one instance and in another to the psychiatric hospital for six months on a closed ward. He apparently detests confinement with patients suffering from ordinary psychoses and, with his perfect appearance of sanity, he seems incongruous among them. Yet he will often, after a brilliant and moving discussion of his plans to succeed, fall into folly the very day he is dismissed and find his way back to the wards.

After failing immediately and under apparently ideal conditions for success, a dozen times or forty times, he will protest with the same convincing manner that he has used before, and with practically the same words, that he will never repeat his follies. He does not seem to be consciously making an effort to deceive others but seems to be convinced himself. After breaking his word twenty times within a month when he knows (verbally) that his freedom depends on his keeping it he will again look a group of physicians in the eye and assure them that they can depend upon him this time. When asked why should they depend on him, he will reply with a solemn show of dignity: "Why I will give you my word of honor on it." It is plain that he feels his word of honor will be taken at face value and one feels that he is taking it as seriously as he can take anything, not merely making an attempt to deceive others. Often while he is in a psychiatric hospital his relatives will pay off all his debts, will secure an excellent position for him and persuade his wife to return and help him begin his life again. He will discuss his situation and his plans for the future with his psychiatrist using all the words that would be used by a man who had really gained understanding and who meant to succeed. Yet during the few hours necessary for him to reach home he will have given several bad checks and drunk enough liquor to arrive helpless and blubbering or feebly cursing his family for their "meddling." He has left with the full awareness that such conduct would necessitate his immediate return to the wards he detested and longed to leave.[5]

One case of this sort recently studied by the writer, while begging his wife with tears and moving appeals not to divorce him and while writing melodramatic letters threatening suicide and maintaining that his blood would be on her head, adopted the practice of marrying bigamously other women while on frequent business trips out of town. He apparently had no particular interest in the other women, not even the excuse of transient physical passion. After these exploits were discovered he continued exactly as before to try to shame his wife out of her decision, accusing her of gross injustice and cruelty for considering a divorce.

Although the phychopathic personality in some instances does not use alcoholic beverages at all, drinking is prominent in the careers of most. His drinking, however, is seldom if ever done convivially and he nearly always admits that he does not enjoy it. Often he confesses that he does not even find pleasure in the first drink. He does not become gay or friendly with his liquor but often seeks the lowest company where, sullen and irritable, he makes himself a nuisance, or perhaps wanders off to roll about nauseated in a muddy field or be found by searching relatives as he stumbles about in the rain, his trousers hanging about his knees, his shirt stained with vomitus, while he aimlessly curses or feebly cries in the empty night.[6]

The so-called psychopathic personality then is a man who, despite his appearance of sanity and intelligence, fails continually under any circumstances and at any task,

month after month and year after year. He learns nothing by his failures and succeeds no better however great are the issues at stake. He cannot keep the rules on a parole ward in a psychiatric hospital and so is promptly locked up. He throws up the most promising positions despite the fact that his own well-being, the security of his children and every vestige of his pride are at issue. Though he often protests his suffering and his remorse, as we observe him we become convinced that, despite his eloquent words, these emotional reactions are so shallow that they can be considered almost purely verbal. If we assume that he is really trying to succeed, in the sense of staying out of jail or psychiatric hospitals, making a good living, gaining security or achieving the respect of his fellows, he shows the most execrable judgment imaginable.

If then we can obtain a reliable history of the so-called psychopathic personality, it becomes plain not only to examining physicians but even to the layman that he is exceedingly poor material for our armed forces. Not only will he fail regularly and in the most vital crises, but he will prove a seriously disorganizing influence and will demand time and energy from others. Often he will put the blame on his companions and, with his superficially logical mind, create doubt and confusion and spread dissatisfaction. Even if he is removed from the service he will for the rest of his life demand pensions and privileges and usually claim that his experiences in the army or navy were the cause of his disability. His relatives, swayed by wish fulfilment, also seek to find the explanation of his disorder in this field since it not only enables them to gain financial assistance in dealing with him but also assuages their wounded pride in furnishing a tangible excuse for his spectacular and humiliating maladjustment. It has been estimated that, aside from the interference with our efforts to arm, each case of personality disorder accepted for service will, on an average, cost the government approximately $30,000 during the years to come.[7] The writer believes that each case of so-called psychopathic personality will be among the most expensive of these mistakes.

Our other and final question, "What is really the matter with such personalities?" cannot be so readily answered. Briefly it may be said that in this writer's opinion such people are psychotic. This opinion is contrary to the prevalent legal attitude which regards the psychopathic personality, theoretically at least, as sane and competent. Because of his status in the eyes of the law such a person cannot be legally committed to a State Hospital and is usually, again in theory, considered as ineligible for admission to the psychiatric hospitals maintained by the Federal Government. Though our expressed opinion is contrary to legal opinion and to the opinion of many psychiatrists, it is entirely consistent with the behavior of the subject as contrasted with his appearance, his speech or his stated intentions. Here the present writer is in thorough agreement with McDougall who, concerning the question of whether a person is "sane" or "insane," has stated: "In practice the criterion adopted is: Can the patient be trusted to look after himself and his affairs without undue risk to himself and others? And there is no other criterion."[8]

We maintain then that the so-called psychopathic personality is psychotic; not in the ordinary sense wicked or depraved or injudicious, and not merely a borderline case of maladjustment but psychotic, incompetent and totally disabled. His appearance of sanity, we believe, is merely an appearance, a true *mask of sanity* in which he verbally mimicks the normal person. He can, however, only mimic academically; he cannot carry out normal behavior. This, we believe, is because he does not normally experience life despite his glib and accurate use of words that connote feeling and experiencing. He does not apparently realize that he is not participating, that shame, passion, ambition, indignation and, in general, the evaluational aspect or dimension of existence[9] are out of his range, and, not realizing this, he can only mimic or carry out the motions of living. Schopenhauer has said

that intellect is invisible to the man who has none. So we may presume that to the so-called psychopathic personality the reality of life-values, the actual essence of emotion is invisible even in others. He cannot realize that they are doing more than merely going through the motions like himself. Thus we can perhaps understand better his astonishing appearance of sincerity. He might, in fact, be said actually to be in a sense sincere; but only in a limited sense, since sincerity itself implies and demands awareness of meanings, experiencing of or participating in emotions which to him are non-existent. We might say then that the so-called phychopathic personality is a person who fails to live at the psychobiologic level at which meanings are experienced, or that the meaning aspect of life has become dissociated from his functioning as an integrated unit or organism.[10] He shows no disorder at the simpler neurologic levels and little or no disorder at the levels of logic or of academic reasoning where we look for the signs of the other psychoses. We might. however, say that he has a serious disorder at a semantic level and that this disorder, despite his perfect mask of sanity disables him. The term *semantic dementia* or, since the implications of *dementia* might prove misleading, *semantic dysergasia* would more adequately convey an idea of the real nature of this disorder than the vague and often misleading term *psychopathic personality*. If we assume that such patients are disabled in this manner, that they cannot find their way into life in the sense of experiencing and participating at the level of meaning, not only their failures to learn by experience but also their active drive towards disaster, their apparently deliberate wooing of folly, can be better understood. They fail to learn by experience because they do not experience. Not being able to participate they are readily moved by regressive impulses, by what has been called the will to fail, and, actively but without understanding in the sense of realization, they become involved in what, perhaps too dramatically, might be called an elaborate and protracted sort of suicide, a suicide at social or spiritual levels—if one may allow these words in the sense this writer means them.

As to why such a disorganization occurs one can do little more than speculate. This writer is inclined to believe that this dissociation of the meaning component, with the consequent failure to experience, is the ultimate result of conflict that is met, as in the schizophrenic, by a long series of faulty reactions. Sometimes one sees or seems to see in the history of such cases early conflict and early failure followed by a reaction, but scarcely a conscious reaction, that leads the subject to behave as if he felt, "Well what does it matter anyway?" It is not implausible to think that perhaps, in cumulative series, such reactions, adopted more and more frequently and with increasing loss of insight, might lead finally to a virtual dissociation or weeding out of values or meanings from influence on the psychobiologic activity of the organism. One can readily grant that a vicious cycle would result and that each attempt at meeting failure in this fashion would lead to further failure and to a greater need to dodge the issue in the same fashion. Sometimes one seems to see running through the long record of fantastic failure, of deliberate buffoonery, of the active wooing of what the normal man would call shame, a spite reaction that suggests an early vengeful but impotent protest towards the parents. Parents sometimes say in punishing a child, "This hurts me more than it does you." And often parents tell the child that they will take more joy in his success, suffer more in his reverses and find deeper shame in his failures than in anything that happens to them. Perhaps there may be found, crystallized in personality functioning and inaccessible to the subject, an archaic, puerile plan of spite against the early shaping forces, a plan that he does not realize at all is his own.

Summary

1. It is maintained that the so-called psychopathic personality constitutes a serious problem in the efforts of the nation to prepare for defense.

2. Persons with this disorder are grossly unfitted for any responsibility and should never be entrusted with the serious and vital tasks upon which our defense rests. They are furthermore common in nearly every community and are appearing before the selective service boards in great numbers.

3. They are furthermore extremely difficult to recognize during a direct examination, not only by the general practitioner but also by the experienced psychiatrist.

4. A reliable history giving a longitudinal section of their lives and portraying their actual conduct will make a diagnosis easy to any examiner reasonably familiar with this disorder.

5. It is maintained that, despite the perfect mask of sanity in which such persons appear, they are, practically speaking, psychotic and should be so recognized and treated.

6. It is suggested that such a term as *semantic dementia* or *semantis dysergasia* would give a better understanding and a more accurate picture of the real disorder here discussed than the vague term psychopathic personality.

7. It is believed that this disorder, *semantic dementia* or *semantic dysergasia*, probably arises from a cumulative series of faulty reactions, that psychobiologic factors dynamically shape the career in such a direction just as, in other cases, they shape the personality towards schizophrenic and other psychotic patterns of life.

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Discussion on Paper of Dr. Hervey Cleckley

Dr. H. D. Allen, Jr. (Milledgeville): First, I wish to express my personal appreciation to Dr. Cleckley for his masterful presentation of the most difficult of all psychiatric problems. If any of you have been even mildly interested in the psychopathic personality you will find, "Mask of Sanity," Dr. Cleckley's recently published book on this subject most readable, instructive, and above all, of real psychotherapeutic value to most anyone, particularly oneself.

Not in any sense of criticism but as a matter of caution, I would like to differ, if only feebly, with one concept that I feel is entirely too gripping on the mass of psychiatric thought of the time. That is, the futility of discipline as a measure in mental hygiene. To me, discipline, if started early enough, bears the same relationship to the prevention of mental illness that vaccination bears to smallpox prevention. In using the word discipline, I mean doing something for the sake of the task, even if disliked or boring. The old hickory whaling is not the meaning but only a means to the end. It seems that if a fellow, or rather a guy is just disreputable enough he gets indefinite deferment. If for no other reason than poetic justice, where a person is excluded from the draft because a more stable, better citizen is available in a lower bracket of the draft lottery; then the one excluded or deferred should be put in jail or a work camp on general principles rather than be left at large to obtain and lose twenty or forty jobs that good men have left for the service.

I have the impression from somewhere that three arrests for drunkenness in a year is sufficient evidence that a person is too unstable and should be deferred in the draft. Our army discipline is surely at a low level if it assumes a failure in civilian discipline (police and police courts) gives absolute assurance of failure under military discipline. Though the United States is flowing with milk and the army can have all the cream it wishes, the psychiatrist may well consider the possibilities of souring the cream. One of the best disciplinarians it was ever my privilege to know was equally as good with horses and dogs as he was with bad boys.

Knowing Dr. Cleckley's training from hearsay, as well as his writings, I wonder if in his sojourn at Oxford, some of the inculcations other than the mathematics of Chas. Dodson, might not have seeped into the spirit of his literary achievements. I really feel an actual sense of resentment towards his proposed new designation of this clinical entity that he has presented with such force and clearness. If he uses semantic in the sense of Richard C. Trent, Archbishop of Dublin, "Studies of Words," 1851, I must confess that I have always felt that semantic dementia was my own affliction, as I am always both writing and speaking words whose meanings, general, specialized and changeable are not entirely clear to me, myself. This past week I was in Richmond at the 97th Annual Convention of the American Psychiatric Association, and even after 20 years of membership in this association I could understand less than 25 per cent of the

papers; so, if general semantics have a therapeutic value it should be given first to us psychiatrists in loose leaf and unabridged doses.

If time permits I should like to call attention to a slight lack of completeness in Dr. Cleckley's study. My impression is that money (and gambling) is an expression of the psychopathic personality often on a par with sexual and alcoholic debauches. My homiletic definition of the psychopathic personality is one who can circumvent the whole ten commandments in between the felonies and misdemeanors, and take full advantage of Christ's injunction to forgive seven times seventy with a highest nuisancy value.

INFLUENZAL MENINGITIS

Report of Case

HELEN W. BELLHOUSE, M.D.
Thomasville

In the past five months it has been my good fortune to have an experience which should be shared with all, because it brings closer home the possibilities of success in a field of therapy which had been hitherto practically hopeless. Fortunately cases of recovery in influenzal meningitis are becoming more common with progress in chemotherapy.

Let us first consider the case in hand, viewing it from the point at which we stood when it was presented to me. Then we can consider the literature dealing with this subject over the past several years. Several weeks after I began to plan my therapy it was corroborated in a fairly large series of cases reported by Neal and a coworker.[4]

Report of Case

S. L. M., colored female, aged 2½ years, was brought to the office on Oct. 18, 1940.

Chief Complaint: Convulsions and unconsciousness.

History: Patient had a cold for a week or so, followed by five severe convulsions two nights previously. The day before the child was seen she vomited and became comatose. She took no fluids. On the day she was seen she had become completely unconscious.

Examination: Thin, markedly dehydrated, acidotic, colored female, deeply unconscious. Her temperature was 99.8 F. rectally. She showed definite neck rigidity. Positive Kernig and Babinski were not obtained. Her right arm and leg were very spastic; this was said to have followed the convulsions. Pupils reacted sluggishly to light. There was evidence of upper respiratory infection.

Diagnosis: Meningitis was confirmed by spinal puncture at the hospital. Fluid was under no increased pressure and was very turbid. Globulin was four plus, sugar was absent, and the cell count was 20,000. On smear gram negative pleomorphic organisms were found. The following day Dr. Erickson, pathologist of the Archbold Memorial Hospital, confirmed this finding and stated that the organism resembled *B. Hemophilus influenzae*. Unfortunately further studies, such as strain-typing, were not done.

The Problem: I was confronted with a child for whom hospitalization was not available. Financial circumstances were such that any money available for serum therapy would have to be raised through charity channels. There was a grave problem of nursing to be considered.

Decision: My opinion (on the basis of present circumstances, extensive reading; and previous personal experience, alone and with various physicians handling such cases; using so-called specific serum alone; serum with neoprontosil and sulfanilamide; and serum with sulfapyridine; using various methods such as frequent spinal punctures, continuous drainage, and irrigation from above, et cetera) was that the mortality, under any circumstances, was extremely high, and in this case it would be interesting to see what could be done with least interference.

Therapy and Course: A nasal catheter was placed for feeding. The child was given sulfapyridine, grains one per pound, for the first twenty-four hours, then one-half grain per pound thereafter. The family tube-fed the child for the next five days. The tube was changed but left in place. During the next three weeks blood counts were followed closely. It was planned that spinal punctures be done only as there was evidence of increasing intracranial pressure. However, since opisthotonos did not become marked, and there were no severe convulsions, this was deferred and finally was never done. During the first two weeks of illness the left ear began to drain, and the child had an extensive bronchopneumonia. She was extremely irritable and apparently had several minor convulsive periods; phenobarbital seemed to take care of this. She first began to take nourishment by mouth at the end of five days. Her hearing returned next and at the end of three weeks she began to see a little. Vitamin B complex, ferrous sulphate, and cod liver oil concentrate were being administered. By Dec. 8, 1940, seven weeks after the onset, her left ear was still draining; a deep pressure sore, which developed on her head, was healing and she was sitting up feeding herself. But the right arm and leg were still extremely spastic, and there was considerable contracture. Sulfapyridine was discontinued. At that time Dr. John King, otolaryngologist, saw the child. His impression was that of subsiding acute purulent otitis media, left.

X-ray studies of the mastoid showed only a slight clouding of the mastoid cells of the left side, with no

Acknowledgment is made to the John D. Archbold Memorial Hospital for the laboratory and roentgenologic service rendered.

Read before the Thomas County Medical Society, Thomasville, March, 1941.

definite evidence of surgical mastoiditis. Dr. Edgar Fincher, neurosurgeon, was consulted by letter. I had hesitated to repeat the spinal puncture at that time as a diagnostic procedure, for fear of disturbing the circulation and equilibrium of the spinal fluid and relighting a focus. Dr. Fincher confirmed this and suggested that the eye grounds be examined, feeling that choked discs would make brain abscess a possibility, otherwise a meningo-encephalitic was probably responsible for the hemiplegia. An eye ground examination on the child at this time would have required an anesthetic, so on the basis of continued improvement it was deferred.

On Jan. 14, 1941, contracture of the right arm, wrist and leg were marked and splints and massage were demonstrated and recommended. These instructions were not closely followed, but in spite of that, with increasing activity, the child was apparently herself using these parts more, and there has been greatly decreased contracture. When last seen at home she was getting about the house in her rocking chair, traveling rapidly. She was beginning to stand, and the contractures were even less. It is apparently only a matter of time until she has few, if any, residuals. Child was fat and happy.

Discussion

Hamilton and Neff[1] reported what they thought to be the first published case of influenzal meningitis with septicemia treated successfully with sulfapyridine alone. At that time they felt: "The mode of action of sulfapyridine in influenzal meningitis is unfortunately highly speculative and inferential." They believed that any superiority of sulfapyridine in its effectiveness over sulfanilamide in pneumococcic and possibly influenzal meningitis must lie in the addition of the pyridine radical, which is the chemical difference between the two drugs.

Jacobsen and Neter[2] showed experimentally that *Hemophilus influenzae* remained viable in spinal fluid containing sulfanilamide in concentration from five to fifteen miligrams per hundred cubic centimeters even after twenty-four hours. In spinal fluid containing sulfapyridine, however, the organisms lost viability provided they were exposed to drug action for twenty-four hours.

Lindsay, Rice and Selinger[3] have an excellent review of the treatment of hemophilus influenzae meningitis. They discuss the use of Fothergill's method of using serum and complement (guinea pig or human) intraspinally, together with sulfapyridine and sulfanilamide. They discussed rather fully the methods of diagnosing cerebrospinal block, and note that the cisternal puncture, though necessary at times for diagnosis, becomes increasingly hazardous in proportion to the amount of fibrinous exudate deposited at the base of the brain. They also remarked the value of supportive therapy, such as transfusion, fluids intravenously, and subcutaneously, and increased vitamin intake. They said that influenzal meningitis is relatively common in children, and excluding tuberculosis, it is the most common cause of meningitis in children under two years of age. Using specific serum and human complement intrathecally, together with supportive therapy, their mortality was reduced from 97 per cent to 83 per cent. With the addition of sulfanilamide and sulfapyridine in a series of thirteen cases their mortality was further reduced to 54 per cent.

It is my personal thought that intensive chemotherapy by its bacteriostatic action may prevent formation of the dense extensive exudate we see in the fatal cases at autopsy.

Neal, Appelbaum and Jackson[4] show 100 per cent fatality in pneumococcus meningitis, and 95 per cent in influenzal, in the thirty years previous to chemotherapy. The use of azosulfamide and sulfanilamide plus serum was not encouraging in influenzal meningitis. Two recoveries occurred in twenty-nine cases. However, in a group of twenty-nine cases, in which sulfapyridine and sodium sulfapyridine, with and without serum were used, fourteen patients recovered. Five of these recoveries received sulfapyridine or sodium sulfapyridine, or both, without serum. Only eight were treated in this manner. In twenty-six cases blood cultures were done. Eight were positive. Since all but two recoveries occurred in the group with negative blood cultures a positive blood culture is to be considered an adverse sign. They found four to eight grams of sulfapyridine (60-120 grains) daily by mouth, was tolerated by older patients. Young children tolerated four to six grams daily, and in infants under three, two to four grams was tolerated. Sodium sulfapyridine intrathecally, a two per cent solution, was thought to be beneficial. There were no untoward reactions. Sodium sulfapyridine can be given intravenously when sulfapyridine cannot be retained orally. Neal and her coworkers conclude, in view of previous experience, chemotherapy is largely responsible for their lowered case fatality.

Summary

1. Case report is presented of meningitis due to an organism morphologically resembling *B. Hemophilus influenzae*, treated by sulfapyridine orally, with recovery.

2. Case is interesting because spinal puncture was necessary only for the diagnosis. It was complicated by a severe bronchopneumonia, a rather prolonged suppurative otitis media, left; and a right spastic hemiplegia, which is disappearing rapidly (at this writing the child uses right arm freely and is able to stand.)

3. Patient was cared for in a poverty-stricken home at a minimal financial cost with excellent cooperation of the family. The author believes such results can be repeated with similar therapy if cooperation can be obtained. However, one might not always be so fortunate as to need to do only one spinal puncture. This decision would depend on the individual clinical course.

4. It is suggested that intensive chemotherapy with sulfapyridine and its derivative, by its bacteriostatic action, may prevent formation on the dense extensive basilar exudate seen in the fatal cases at autopsy.

5. A review of the literature reveals that successful recoveries from *B. Hemophilus influenzae* meningitis are practically doubled in frequency with the advent of chemotherapy, particularly with the use of sulfapyridine and sodium sulfapyridine.

References omitted for lack of space but will be included in reprints.

THE BLOOD SEDIMENTATION TEST

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One of the oldest and simplest laboratory procedures is less widely used than its simplicity and usefulness should warrant. The theory of the four humors, and their disproportion as the primary cause of disease, was based on observations of the phenomenon now measured in the blood sedimentation test. The discovery of the sedimentation test by Fahraeus[1] in 1918 was accidental. He did not realize that he was studying a principle of considerable interest to Galen, to John Hunter, and to many others, years before his rediscovery.

The blood sedimentation test is a study of the speed of settling of the erythrocytes in a sample of blood, to which an anticoagulant has been added. There are two basic methods. In the Westergren method[2] the distance of fall in a given time is recorded. In the Linzenmeier[3], the time required for the cells to fall a given distance is determined. There are inherent advantages in the former. It is simpler to determine the level at a definite time than to observe the apparatus constantly for a period that may vary from minutes to hours in individual tests. More than thirty modifications of these two methods have been suggested.

There are many studies dealing with technicalities involved in the performance of the test. There are methods which stress the value of frequent readings, corrections for anemia, and the avoidance of physicochemical factors influencing the rate. Yardumian[4] concluded that the sedimentation rate was influenced by many variable factors and that it was inconceivable that it could be of appreciable diagnostic or prognostic value. Such studies and conclusions discourage general use of the test, as it appears that the test and its corrections are complex, and the procedure one of considerable technical difficulty.

From the Department of Medicine, Emory University School of Medicine.

Read before the Emory Alumni Clinics, June, 1940.

From a clinical standpoint it must be remembered that the sedimentation of the erythrocytes is a nonspecific phenomenon. There is no generally accepted explanation for the basic cause of the variations in the presence of disease. In general, it parallels the degree of tissue destruction present in the body. The variations resulting from anemia, type of anticoagulant, type of apparatus, temperature, and other factors are more theoretical than practical. The application of the various corrections, especially the correction for anemia, may result in misleading normal rates.

The blood sedimentation test is of value in diagnosis and prognosis. The value of the sedimentation rate, determined at intervals during the course of pulmonary tuberculosis, rheumatic fever, and infections of the pelvic organs in women, is well known. The test has been considered of more value than any other laboratory or clinical sign in judging the activity of these diseases. There are other conditions in which the test is of value, some of which are less well known than those mentioned.

Robinowitz and his associates[5, 6] observed acceleration of the sedimentation rate following coronary artery occlusion. This takes place following the acute episode, at a time when the initial leukocytosis and temperature elevation have subsided, and at a time when the clinical diagnosis may be more difficult. The test is also of value in following the progress of a case of angina pectoris. A sharp change from the usual level on interval determinations should suggest that a more significant myocardial change had taken place, even if not indicated by the history or the physical findings.

Lesser and Goldberger[7] have studied the use of the sedimentation test in the diagnosis of acute appendicitis. They found that, short of rupture and abscess formation, acute appendicitis failed to accelerate the sedimentation rate in any of their cases, whereas many other conditions producing similar symptoms and signs were usually accompanied by an accelerated rate.

Pneumonia is usually accompanied by a rapid sedimentation rate in the early

stages of the disease. It becomes more rapid in cases in which the prognosis is poor. It becomes slower as the patient improves. It does not return to normal until several weeks after the roentgenograms and clinical findings have returned to normal.

Biern[8] has found that following complete surgical removal of a malignant tumor, the sedimentation rate will return to normal in six weeks. If the rate remains normal for six months, the prognosis is favorable. On the other hand, if the rate remains elevated, removal has been incomplete, or metastasis has taken place. Bannick et al[9] state that cases of suspected skeletal metastases with otherwise unexplained elevation of the sedimentation rate, must be considered as instances of such spread until proved otherwise, even when roentgenograms are normal.

My own interest in the sedimentation test has been centered around its use as a routine laboratory procedure, a field in which it has much value. Following a clinical evaluation of 2063 cases in which the test was used as a routine procedure, certain facts were noted[10]. In these cases, blood counts, urinalyses, serologic tests for syphilis, and blood sedimentation tests were employed as routine procedures. They were performed in every case, on admission. It was found that 34.1 per cent of the sedimentation rates were abnormal. The simple Westergren method was employed, and a reading of more than twenty millimeters in one hour was considered abnormal. At the same time, 10 per cent of the urinalyses, 16 per cent of the blood counts, and 8.5 per cent of the serologic reactions gave information leading to a diagnosis. Therefore, positive results were obtained in 34.5 per cent of the cases through the use of the three more commonly employed routine laboratory procedures, and in 34.1 per cent by means of the less commonly used routine sedimentation test.

In relating the sedimentation rate to the final diagnosis in this series of cases, it was found that only 21 patients of the group in which no evidence of disease was discovered had an abnormal sedimentation rate. Only five of these had a rate of more than 30 millimeters in one hour. Out of these 21 patients, 20 were women, and there was only one man. Therefore, out of 990 men, only one had a sedimentation rate of more than 20 millimeters in one hour which was not explained by the finding of definite disease.

It must be remembered that a normal sedimentation rate does not rule out disease. Any given disease usually causing an acceleration may be present in an individual case without a corresponding abnormality of the sedimentation rate. As a matter of fact, only 43.9 per cent of those cases showing evidence of disease were found to have a sedimentation rate of more than 20 millimeters in one hour. Of the cases with evidence of a disease usually accelerating the sedimentation rate, 26.5 per cent actually had a normal rate. This last finding was not in agreement with other reports. Hirsch[11] reported that in a series of 205 determinations, every case expected to show an elevation of the sedimentation rate gave the predicted results. Wintrobe[12] expressed the opinion that normal rates are rarely found in the presence of disease. Cutler[13] also stressed the rarity of a normal sedimentation rate in the presence of clinically active disease.

It was also noted that 10.9 per cent of the cases in this series showing normal results on the three usually employed tests showed an acceleration of the sedimentation rate. Therefore, in these cases a clue to the presence of disease was obtained through the routine use of the sedimentation test that would not have been obtained from the usual routine laboratory procedures.

The routine use of the sedimentation test is of greatest value as an indicator of the presence of occult disease. This is of great significance, as it may justify a more thorough search for disease in a given case than would be warranted by the history and physical examination alone. The sedimentation test is a "laboratory impression" and within its limits of non-specificity, and its ability to remain normal in the presence of any given disease in an individual case, is worthy of consideration as both a routine and a special laboratory procedure.

Summary

The blood sedimentation test is an old, simple, and valuable laboratory procedure. It may be performed by a simple method, without correction for any of a number of physicochemical factors causing theoretical error, without loss of its clinical value. It is an aid in diagnosis, and in following the progress of an individual case in numerous conditions. It is of particular value as a "laboratory impression" when used as a routine procedure, an elevated rate indicating the presence of disease in 99 per cent of 2063 cases. A normal sedimentation rate does not rule out the presence of any disease. An elevated rate is often a valuable clue to the presence of occult disease.

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THE SECOND X-RAY STUDY

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The importance of thorough x-ray examination in the diagnosis of gastro-intestinal disease is too well acknowledged to warrant discussion. There is a widespread tendency, however, to rely too much on one negative report. When a patient fails to show a reasonable degree of progress, repeat studies should be resorted to without temporizing.

The public has been educated to a point where objections to x-ray study are reduced to a minimum, and the publicity of the past few years has definitely increased the incidence of cancer phobia, yet patients will go from one doctor to another carrying a set of films which may be several years old. In such an extreme case the arguments for a re-examination are well received, but when the films are only a few weeks old it is usually difficult to explain the necessity for another study. A particularly delicate factor in this connection is the danger that the patient will assume some fault with the previous examination. To the average layman the x-ray is infallible, and the great majority of patients have not the slightest idea why more than one film is exposed in a gastro-intestinal series or a gallbladder study. The question, "Was something wrong with the first picture?" is so common that great patience is required to give the important explanation in each instance.

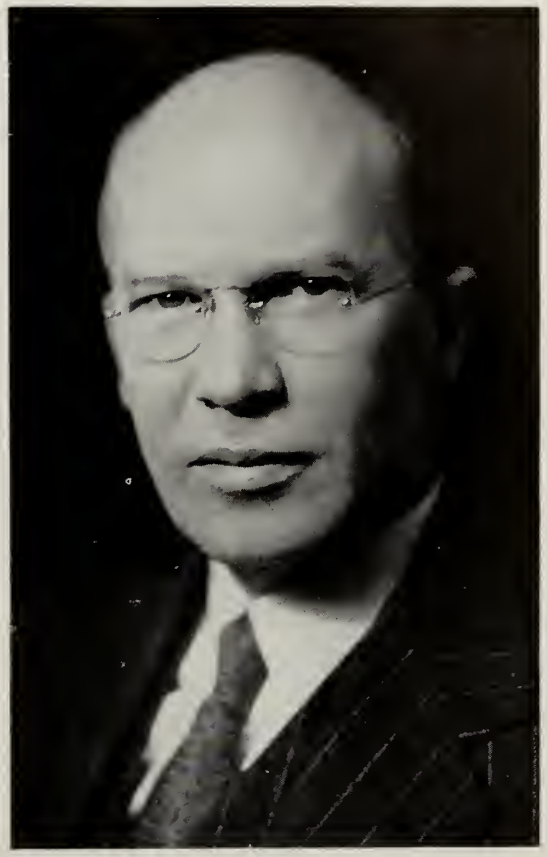
Definite duodenal ulcers are often found in patients whose previous reports show only spasm, irritability, or duodenitis. Delay here is relatively harmless; similar delay in gastro-intestinal malignancies may well be fatal. The rapidity with which fulminating types of gastric cancers show changes in the x-ray findings is not always fully appreciated. Most gastro-enterologists and roentgenologists have had the experience of finding evidences of malignancy only a short time after a study which proved negative. If the previous examination happens to have been made by another physician great tact is called for. Comparison of both sets of films in these cases will usually show that no negligence is involved, and care must be taken to impress this fact on the relatives of such patients.

Because of the expense involved in repeated examinations there will be continued resistance and considerable resentment on the part of the public, and the temptation to compromise by waiting "two or three weeks" is strong.

In gastric cancer the urgency is great, not so much because of the rapid progress of the disease as because of the silence of

(Continued on Page 490)

THE PRESIDENT'S PAGE



November is here. The chill in the air puts pep into your step. Sugar-cane-grindings and sweet-potato-digging—cane juice and roasted sweet potatoes—Thanksgiving and turkey dinner—burning oak leaves and Christmas—firecrackers and eggnog—are all just around the corner.

District Societies

The District Societies occupy a position of particular importance in Georgia since, on account of our very large number of counties—159—only a few of our county societies are large enough to hold regular monthly meetings. In addition to its scientific work, each district society nominates the Councilor for its district. Each Councilor is "organizer and peacemaker for his district" and is its member of the Council. Therefore, it would seem that attendance at these meetings twice yearly would be of paramount importance. All of our district societies have excellent programs, but the attendance, with three or four exceptions, has been small. This could be remedied with a little extra foresight and effort. It would help all of our members to become more familiar with what is going on in medical affairs and assist the Association and county societies in solving the many difficult problems facing us today, and which will face us tomorrow. We cannot act intelligently unless we know the facts.

The Augusta Meeting

The next annual meeting will be held in Augusta on April 28 to May 1. Now is the time to begin our preparations. The Scientific Program and Scientific Exhibit are open to all members in good standing. Those desiring to present papers should send their title, together with a short abstract, to the Secretary-Treasurer or Chairman of the Committee on Scientific Work. Those desiring to present scientific exhibits should apply to the Secretary-Treasurer or Chairman of the Committee on Scientific Exhibit for space. Two classes of awards will be given this year, one institutional and the other for individual exhibits. Thus the individual will not be in competition with institutions for awards. The attendance at Augusta should break all previous records. Let's make it a great meeting.

Allen H. Bunce, M.D.

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DIETHYLSTILBESTROL

Diethylstilbestrol, an estrogen-like substance, has been released by the Food and Drug Administration and is now commercially available to the general practitioner. This estrogen-like substance is a synthetic chemical compound unrelated to estrogens but having high estrogenic activity. This substance can be prepared and distributed very cheaply. If judiciously handled, diethylstilbestrol may prove a boon to those who need estrogenic therapy both from the point of view of economy and ease of administration. On the other hand, it is also possible that a low-priced estrogen may allow for its unbridled use with possible untoward consequences.

The advantages of this new synthetic estrogen-like substance over the naturally occurring estrogens are its low cost, its high estrogenic activity, and its oral efficiency. Furthermore, it is absorbed per vaginam in suppository form without much loss of potency. The disadvantages are its so-called toxicity, i.e., many patients experienced heartburn, nausea, vomiting, or dizziness after its use, particularly after oral administration. In sensitive patients, therefore, it is advisable not to use a larger dosage than 0.1 mg. to 0.2 mg. tablets at a time. Many patients do not seem to experience the sense of well-being associated with the use of naturally occurring estrogens, i.e., the estriols, estrones or the estradiols.

In a study of diethylstilbestrol published in the Southern Medical Journal 33: 1276-1285, Dec. 1940, my associates and I came to the following conclusions:

1. Diethylstilbestrol is a highly effective estrogenic substance whether administered by parenteral, oral, percutaneous or vaginal routes. Its effect on our 79 patients may be summarized:

   a. When administered parenterally, the effect of diethylstilbestrol is not so sustained as that of estradiol benzoate. Eleven per cent of those receiving diethylstilbestrol parenterally experienced some degree of nausea.

   b. The oral route, with either plain or enteric coated tablets, proved unsatisfactory. More than 50 per cent of those receiving oral medication experienced undesirable side effects.

   c. Diethylstilbestrol dissolved in alcohol and used as a percutaneous rub, though not so effective, proved a convenient mode of administration. Undesired side reactions in those receiving this form were reduced to a minimum.

   d. Vaginal suppositories were found to be the most effective route of administration. As little as 0.1 mg. in suppository form administered nightly to patients with menopausal syndrome was frequently capable of transforming the vaginal smear from castrate to a positive estrus in seven days, with concomitant alleviation of the menopausal symptoms. Although 26 per cent of this group experienced side effects, these reactions were never severe and consisted of slight vaginal soreness or mild nausea.

2. Side effects are probably central in origin. Local irritation of the gastric and intestinal mucosa evidently plays a contributory role in the gastro-intestinal disturbances, for the varying degrees of vaginal soreness were common complaints in the group receiving suppository medication. Most of the patients who exhibited side effects developed a tolerance to the drug when dosage was reduced or mode of administration was changed. In those who did not develop a tolerance, the medication was discontinued.

3. Stilbestrol was well tolerated and proved particularly efficient in the suppression of lactation. Since it was found that this drug is quickly absorbed and quickly eliminated, medication should be tapered

off slowly in the treatment of this condition.

4. Both suppository medication and stilbestrol dissolved in alcohol employed as an inunction appeared to hold much promise as convenient and effective modes of administration in which side reactions are mild or minimal.

Robert B. Greenblatt, M.D.

CASUALTIES IN ARMY AND CIVIL LIFE

Since the battle of Lexington the United States has spent about 24 years at war in which it is estimated that a little more than 8,607,000 troops were enlisted. In the Revolution 385,858 officers and men were enrolled but the greatest strength of the Continental Army at any one time was never more than 35,000. The most reliable records show that 4,044 were killed and 6,000 wounded during the 8 years of fighting.

The war with Tripoli, early in the 19th century, was largely an affair of the Navy but 3,330 regular army soldiers participated. There is no report on the casualties.

In the War of 1812 there were 527,654 officers and men enlisted. The Navy was very active, even more so than the Army. There is no record of sickness but 21,000 sailors and 30,000 soldiers are reported to have been killed.

From 1812 to the Mexican War there were 4 Indian wars in which 118,102 troops were engaged. There are no available records of the casualties.

From 1846 to 1848 the United States was at war with Mexico and 116,597 troops were engaged. The deaths are reported at 16,289, and the wounded at 3,393.

In the Civil War there were 2,128,948 Federal troops and, according to Woodrow Wilson, 900,000 Confederate troops engaged. The Federal losses were 359,528 or 16.7 per cent of the officers and men engaged. The Confederate losses were somewhat less, 133,821 or 14.8 per cent.

In 1898 the United States engaged in a short but costly war with Spain. The battle losses in Cuba were a little less than 1,000; in Puerto Rico 43. In the first fighting at Manila 18 were killed and 116 wounded. Killed and died of wounds in the 3 campaigns were 4,132. Sickness was the greatest scourge of this war.

The 4,057,101 troops engaged in the World War were well cared for and, except for influenza, were remarkably free of disease. Casualties including killed, wounded and deaths from all causes were 307,630 or 7.5 per cent of the total enlistment.

During the 24 years spent at war by the United States there have been 892,444 casualties from all causes: killed, wounded and died.

Since the Spanish-American War medical science has achieved many notable victories, but none greater than in the care of soldiers and sailors enlisted in the service of the United States. The men who fought in all wars previous to the World War were harassed with unsanitary conditions, poor food, and disease. During the Civil War and the Spanish-American War there were 104,312 cases of typhoid fever among the Federal troops (no record of sickness in the Confederate army). In the United States Army during the Spanish-American War 32,000 persons died and many who were only partially recovered went home to spread the disease among their families and friends. Of the 4,057,101 troops in the World War there were only 1,529 cases of typhoid fever, a ratio of 1 to 2,635, whereas in the Civil War the ratio was 1 to 37.85; in the Spanish-American War it was 1 to 13.41, and in the Philippine Insurrection, 1 to 32.

The low morbidity and mortality rates among the 4,000,000 men in the World War demonstrate beyond doubt the value of sanitation and preventive measures. It has now been 24 years since that conflict began and many of the states have made little progress in putting into effect the lessons learned during that period. This is not the fault of our national and state health agencies and the medical profession. It is due to political bickering and to the ignorance of the public and their lack of cooperation with the medical profession and the constituted health agencies. It will be many years before we can extend our health education to all strata of society. The death rates among the ignorant poor are from

two to seven times higher than among the educated and well-to-do.

In 1936 more people were killed and wounded by automobile accidents in the United States than have been killed, wounded and died of all other causes in the wars of our 160 years of national existence! In 1936, there were 1,007,895 traffic casualties, 39,246 of whom were killed. It is also worth noting that in 1935 more people died of heart disease than died of gunshot wounds and all other causes in the World War. During 1935, 312,333 persons died of heart disease and 144,065 died of cancer. These figures suffice to show that the wars participated in by the United States cause less slaughter than our *uncontrolled* traffic and the ever-increasing mortality from heart disease and cancer.

It must be emphasized that the increase in the death rates among the poor is due largely to ignorance and its twin, superstition, and to lack of proper food, clothing and nursing. The medical profession stands ready to do its utmost to care for these people, but many of them delay calling a doctor and prefer to use some old home remedy. Where people have accepted the counsel of our doctors and health officers, infectious diseases have been consistently diminished.

The Medical Association of Georgia in cooperation with the Georgia Department of Public Health, and the Woman's Auxiliary to the Medical Association is sponsoring an intense educational campaign. Only this year numerous talking films have been secured and eleven moving picture machines purchased and placed in the custody of the Councilor in each Congressional District. Meetings will be held all over the State during the school year.

No editorial would be complete without mention of the noble work being done for the control of cancer by the Women's Field Army of the American Society for the Control of Cancer. Their labor has already borne fruit; but, if we judge by the results of the tuberculosis educational work, ten to fifteen years will elapse before there is the hoped for decrease in cancer deaths.

J. L. CAMPBELL, M.D.

*Statistics cited were secured from the Surgeon General's office of the U. S. Army, the 1938 edition of the World Almanac, the Encyclopedia Americana, and Ashburn's History of the Medical Department, U. S. Army.

COUNCIL MEETING

A meeting of the Council was held in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, Oct. 20, 1941. Dr. W. A. Selman, chairman, called the meeting to order. Those present were:

Fourth District—Kenneth S. Hunt, Griffin.

Fifth District—W. A. Selman, Atlanta; Marion C. Pruitt, Vice Councilor and Chairman, Committee on Medical Defense.

Sixth District—H. D. Allen, Jr., Milledgeville.

Ninth District—C. B. Lord, Jefferson.

President—Allen H. Bunce, Atlanta.

President-Elect—J. A. Redfearn, Albany.

Second Vice President—Lester Harbin, Rome.

Secretary-Treasurer—Edgar D. Shanks, Atlanta.

Chairman, Sub-Committee on Medical History of Georgia—Frank K. Boland, Atlanta.

Chairman, Committee on Appendicitis—T. C. Davison, Atlanta.

Chairman, Committee on Medical Preparedness—Edgar H. Greene, Atlanta.

Trustee of the American Medical Association—C. W. Roberts, Atlanta.

Secretary-Treasurer, Fulton County Medical Society—Eustace A. Allen, Atlanta.

DR. ALLEN H. BUNCE expressed grateful appreciation for the work which has been done by the chairmen of committees and the Councilors. He pointed out the importance and functions of the Council and suggested that the chairmen write all Councilors and Vice Councilors notices of the time and place where meetings are to be held and urge them to attend. He pointed out that only a few county societies meet often, therefore the necessity of getting as many members as possible to attend district meetings. Dr. Bunce reported that he had attended all district meetings since being installed as president, except when the dates of meetings were in conflict or when he was out of the State. He suggested that programs be printed farther in advance than is being done now. Since the Association pays the actual expenses of the Councilors when on duty for the Association, they should learn what is happening and in the event of dissension among members in local communities, they should be smoothed out or bridged to prevent suits for alleged malpractice, and to promote a compact and loyal organization. What happened in the early days of organization was reviewed when physicians rode horseback for days to attend medical meetings. That the Council is the most important and central artery of the Association and it acts as a Board of Censors, Board of Trustees, Fiscal Agents and Board of Directors. That people must learn what is to be done to provide medical care for the indigent, that the draftees who have been and are being rejected on account of physical disabilities must be cared for, and that it might be done by local governments in cooperation with the State and Federal Governments by establishing clinics which would not be con-

nected with any physician's office; but physicians would be employed on a per diem basis, and might be rotated. Industrial medicine was discussed and he stated that it had become a real necessity for the employees that such medical care must be supplied. That the distribution of practice should be fair to all concerned, that no unreasonable bills for practice should be submitted, that patients should not be kept in hospitals longer than necessary. He pointed out that the time had been when a physician practiced for employees of a cotton mill and did not receive compensation because of the destitute conditions which prevailed and cited specific instances. Suggested that the Councilors and officers of the Woman's Auxiliary make plans for the showing of as many health educational films as possible. That plans should be made for the use of the Benevolent Fund to be used for indigent physicians and their families when actual necessity arises.

Dr. J. A. Redfearn reported that he had attended as many district meetings as possible. Suggested that the young doctors be urged to affiliate with local societies and the Association. He related some of his experiences to obtain funds to attend a medical school. He stated that physicians should learn the medical necessities of the people and that this was most important for the young physicians. Members who attend medical meetings are better informed. While medical service is far superior to medical care given in former years, that good service required modern equipment, and that organized medicine was responsible for the increased efficiency.

Dr. W. A. Selman related an interesting story as told by the late Dr. Westmoreland when he traveled on horseback across the West stranded without funds.

Dr. Edgar D. Shanks reported that the Executive Committee selected the Bon Air Hotel, Augusta, for the place to hold the next annual session of the Association, April 28, 29, 30—May 1, 1942. Also that a reduction in hotel rates had been secured: double room $6, single room $7.50, which would include all meals, tickets for alumni dinners, and tickets for the annual banquet. That many inquiries have been made for exhibit space and that floor prints will be available immediately. Report on the finances with number of membership cards issued was made. List of moving picture machines, equipment and films purchased for health education and the saving in purchase price obtained. Previews of the films were made by the Secretary-Treasurer and the chairman of the Council. It has been noticed that films on the subject of nutrition are more in demand than others. The State Board of Health has or will spend $1,000 for health films and take care of the distribution in the respective districts. The National Youth Administration sponsors health films and proposes to buy other films to be used in cooperation with those purchased by the State Board of Health and the Association. The Secretary-Treasurer reported that the Council recommended and the House of Delegates approved an appropriation of $5,000 to be set up as a Benevolent Fund to aid indigent physicians and their families. The plans for obtaining funds and the procedure for distribution in Massachusetts, New York, Pennsylvania, Illinois and other states were reported. Motion carried to adopt a modified plan of the Illinois State Medical Society; that is, with certain amendments to our By-Laws in reference to allocation of 50 cents from each paid member's dues. The Benevolent Fund would be disbursed under the direction and supervision of the Executive Committee, Councilor of the district in which the indigent physician and/or his family resided, and upon the recommendation of the secretary of his county medical society. Another way of raising funds would be to make the Benevolent Fund one of the objectives of the Woman's Auxiliary, provided they were willing to sponsor the undertaking. The first procedure would be to ascertain whether or not the physician and/or his family were indigent and eligible for financial assistance, also how long would he possibly be entitled to such benefits and if there was a possibility that he might again become self-sustaining. It would be the duty of the county secretary or the Councilor in whose jurisdiction the physician or his family might reside to investigate the applicant's financial difficulties and the secretary of the county society then would report to the Secretary-Treasurer of the Association for further investigation or for submission of the application for aid to the Executive Committee. In disbursing Benevolent Funds, the length of time the physician had been a member of the Association and the general circumstances would be considered.

Dr. E. A. Allen, Secretary of the Fulton County Medical Society, spoke on plans and the success of raising Benevolent Funds by other organizations and made specific reference to the procedure by the State Dental Association in which the dentists sponsored the sale of seals in addition to other methods.

Dr. Allen H. Bunce suggested that the By-Laws be amended so that the allocation of funds would be recommended by the Council and approved by the House of Delegates, also that the names of physicians who receive such assistance would not be published as is usual in other routine transactions.

Dr. T. C Davison, chairman of the Committee on Appendicitis, reported on the progress of the Committee; that it had followed the procedure of the states of Pennsylvania and Ohio. The State Board of Health donated 100,000 pamphlets on the subject, promised another 100,000 but only delivered 20,000 on account of lack of funds. The pamphlets have been distributed among high school students. The Committee has a supply of labels which will be sent to committees in county societies in an effort to reach civic organizations and others. He thanked the Council for expense funds which had been allowed.

Dr. H. D. Allen, Jr., reported that he had written to the secretaries of county societies in the Sixth District and urged them to collect dues from delinquent members and that many of them had paid dues recently.

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WOMAN'S AUXILIARY : OFFICERS 1941-42

President—Mrs. Lee Howard, 625 East 44th Street, Savannah.
President-Elect—Mrs. J. Lon King, 223 Buford Place, Macon.
First Vice-President—Mrs. W. A. Selman, 760 Penn Avenue, N. E., Atlanta.
Second Vice-President—Mrs. Fred Rawlings, Sandersville.
Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta.
Third Vice-President—Mrs. J. R. McMichael, Quitman.
Recording Secretary—Mrs. J. C. Metts, 303 Anderson Ave., Savannah.
Parliamentarian—Mrs. J. E. Penland, Waycross.
Treasurer—Mrs. Bruce Schaefer, Toccoa.
Corresponding Secretary—Mrs. Charles Usher, 6 East Liberty Street, Savannah.
Historian—Mrs. Ralph Freeman, Hoschton.

MRS. KING'S MESSAGE

Mrs. J. Lon King, of Macon, president-elect of the Woman's Auxiliary to the Medical Association of Georgia and chairman of organization, has issued the following important message, which will be read with interest by all Georgia Auxiliary members:

"The Auxiliary to the Medical Association of Georgia should certainly grow. At the present time, with so many avenues through which its work can travel, the auxiliary has in its hands a rare opportunity for progress.

"It is our organization and only ours, and every doctor's wife should feel privileged to be a part of it. Its aims are simple and direct; the advancement of health education, assistance at all medical meetings and promotion of acquaintanceship among physicians' families.

"It is the link between the physician and the public. It becomes, often, the buffer between correct medical advice and ignorance.

"The auxiliary has a task to accomplish and a vision to fulfill. Surely, with every doctor's wife in our State interested in its program, the results will be more quickly obtained.

"The work in organized counties can go on smoothly, but can it stop there and give satisfaction? Nothing is ever fully successful when satisfaction is realized in only partial accomplishments. These auxiliaries must reach beyond their boundaries into unorganized areas.

"How can seemingly disinterested women know what the auxiliary is trying to do, unless its plans are presented to them in a way that makes them want to be a part of it?

"Doctors' wives have a certain place to maintain in every community. They may be leaders if they so desire, if not, they can and should be behind every program promoting better health and good citizenship.

"Now, when our country is so self-minded on account of world events, national defense and public health needs, the auxiliary members have an excellent opportunity, from this attitude, to convince all doctors' wives that together the auxiliary can accomplish all it hopes to do."

FIFTH DISTRICT AUXILIARY

The Woman's Auxiliary to the Fifth District Medical Society held its semi-annual meeting on Monday, October 20, at the nurses' home of Crawford W. Long Hospital in Atlanta. Prior to the meeting, the auxiliary and society enjoyed a delightful buffet dinner together. Mrs. Murdock Equen, president of the Woman's Auxiliary to the Fulton County Medical Society, and Mrs. Howard Hailey, wife of the president of the society, presided at the coffee table. Mrs. O. H. Matthews greeted the guests and Mrs. Hal Davison and her committee had charge of serving the dinner. Mrs. W. W. Anderson arranged the floral decorations.

At the meeting, Mrs. J. Harry Rogers, district manager, presided and Mrs. Harvey Griggs, of Conyers, secretary, read the minutes of the spring meeting. Distinguished guests introduced were Mrs. Lee Howard, of Savannah, president, and Mrs. J. Lon King, of Macon, president-elect of the Woman's Auxiliary to the Medical Association of Georgia; Mrs. W. A. Selman, of Atlanta, first vice-president of the state group; Mrs. Eustace Allen, of Atlanta, chairman of revisions for the national group; Mrs. Olin Cofer, councilor from Georgia for the Woman's Auxiliary to the Southern Medical Association; Mrs. Allen Bunce, wife of the president of the Medical Association of Georgia; Mrs. C. W. Roberts, wife of the president of the Fifth District Medical Society; and Mrs. Murdock Equen, president of the Woman's Auxiliary to the Fulton County Medical Society.

Dr. Roberts brought greetings from the society and introduced Dr. Allen Bunce, who gave a thought-provoking message on "The Future of Medicine in Georgia." Mrs. King talked most interestingly on organization and the part the doctor's wife must play in national defense and Mrs. Howard stressed, in her inimitable manner, the objectives and the problems of the Auxiliary. Mrs. Jeff Richardson, chairman of health films in the Fifth District, told of her plans for this most important project.

A committee, composed of Mrs. Olin Cofer, chairman, Mrs. Joseph Yampolsky and Mrs. O. H. Matthews, was appointed to study the constitution and by-laws of the society and bring any projected changes before the next meeting.

FULTON COUNTY AUXILIARY

The wives of army doctors stationed at the various hospitals or camps in the vicinity of Atlanta were honor guests at the meeting of

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GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1941

President—Frieda Grefe, R.N., Savannah
First Vice-President—Carrie Spurgeon, R.N., Atlanta
Second Vice-President—Mrs. Mae M. Jones, R.N., Milledgeville
Secretary—Mrs. Esther Watts, R.N., Columbus
Treasurer—Jane Van De Vrede, R.N., Smyrna
President, Georgia League of Nursing Education—Lucy Harris, R.N., Atlanta
President, Georgia State Organization for Public Health Nursing—Vera Mingledorff, R. N., Griffin
Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, R.N., Albany
Chairman, State Committee on American Red Cross Nursing Service—Jane Van De Vrede, R.N., Smyrna

Executive Secretary, G.S.N.A., Durice Dickerson, R.N.
Headquarters: 131 Forrest Avenue, N. E., Atlanta, Ga., Telephone: WAlnut 8911

Officers of the Georgia State Nurses' Association, 1941-42.

ANNUAL CONVENTION

The above photograph shows some of the new officers of the Georgia State Nurses' Association who were elected at the thirty-fifth annual convention held Oct. 26-29, 1941, at Gainesville, Georgia, and some of the officers whose terms did not expire at this meeting. Other officers and district presidents were not present for the picture.

Standing, left to right: Durice Dickerson, Atlanta, Executive Secretary, G.S.N.A.; Rubye Smith, Gainesville, President, Ninth District, G.S.N.A., the 1941 hostess district; Mrs. Mildred Pryse, Albany, Chairman, Private Duty Section, G.S.N.A.; Vera Mingledorff, Griffin, President, Georgia State Organization for Public Health Nursing; Mrs. Eva S. Tupman, Atlanta, President Emeritus and Organizer of The Georgia League of Nursing Education; Lucy Harris, Atlanta, President, Georgia League of Nursing Education; Genevieve Garren, Atlanta, Ada Griesert, Thomasville, and Mrs. Lucile T. Kemp, Milledgeville, Directors of G.S.N.A. Seated, left to right: Jane Van De Vrede, Smyrna, Treasurer, G.S.N.A., and Chairman, State Committee, American Red Cross Nursing Service; Mrs. Esther Watts, Columbus, Secretary, G.S.N.A.; Frieda Grefe, Savannah, President; Carrie M. Spurgeon, Atlanta, First Vice-President, and Mrs. Mae M. Jones, Milledgeville, Second Vice-President.

Officers absent were: Mrs. Frances King, Augusta, Director, G.S.N.A. and President of the Board of Examiners of Nurses for Georgia: District Presidents not shown in picture but members of the Executive Board are: First District, Mattie Jeffers, Savannah; Second, Mrs. Lucile Murphy, Albany; Third, Mrs. Mae L. Powell, Columbus; Fourth, Annie L. Higginbotham, West Point; Fifth, Lillian Cumbee, Atlanta; Sixth, Mrs. Erith McGee Hall, Macon; Seventh, Kathryn Pendley, Rome; Eighth, Mary Crosby, Waycross, (acting President). First Vice-President; Ninth, Rubye Smith, Gainesville (seen in above picture); Tenth, Mrs. Olive Barbin, Augusta; Eleventh, Cathryn Underwood, Athens.

The Industrial Section of G.S.O.P.H.N. elected Miss Margaret Currie of Gainesville as chairman to serve for the coming year. The Tenth District G.S.N.A. will be hostess to the 1942 convention, which will be held at Augusta.

Outstanding Actions Taken at Convention

Approval of a budget which will allow for

considerable expansion of the program as outlined by the State Nursing Council for National Defense as stated in the following suggested council functions which were adopted:

1. To determine the role of Georgia nurses and nursing in the program of National Defense.
2. To unify all nursing activities which are directly or indirectly related to National Defense.
3. To study Georgia's nursing resources; to plan the most effective use of these nursing resources; to provide for necessary increases; and to set up the machinery which will insure the quickest possible functioning in case of need.
4. To insure the continuance of the high quality of Georgia's accredited schools of nursing and nursing services in order that effective nursing may be maintained in a national emergency.
5. To act as a clearing house regarding nursing and national defense, and to cooperate with other state agencies having related activities and functions.

Vocational Guidance program; supplying teachers for courses in first aid and nurses aid courses under American Red Cross program and cooperating with civilian defense program were some highlights of the discussions as heard at the convention. See news item elsewhere in this Journal for report of speakers from the Medical Profession as well as national guests and other groups who contributed greatly to developing a finer and much closer working relationship for G.S.N.A. and other agencies which have a common aim; the health, happiness and well being of the people of Georgia and our country.

WOMAN'S AUXILIARY

(Continued from Page 484)

the Woman's Auxiliary to the Fulton County Medical Society, held on October 3, at the nurses' home of Crawford W. Long Hospital in Atlanta. Mrs. Murdock Equen, president, presided and Mrs. O. H. Matthews, courtesy chairman, introduced the honor guests.

Colonel Cooley, of Lawson General Hospital, spoke most interestingly on the hospital, which cares for soldiers throughout the area who may need hospitalization. Dr. Edgar H. Greene, medical director of selective service for Georgia, exhibited a chart showing the various causes for which draftees were turned down by examining officers, the percentage for each cause being graphically illustrated. A speaker from the Community Fund emphasized the importance of the planned drive for funds to carry on this excellent work.

Reports were given, after which the guests were entertained at luncheon with Mrs. Bruce Logue and the telephone committee in charge. An unusually large attendance featured the meeting.

BARROW COUNTY AUXILIARY

Mrs. C. B. Almand, prominent Winder matron, was elected president of the Woman's Auxiliary to the Barrow County Medical Society at a recent meeting held at the home of Mrs. W. T. Randolph in Winder. Other officers elected were Mrs. S. T. Ross, vice-president; Mrs. Ernest R. Harris, recording secretary; Mrs. W. L. Mathews, corresponding secretary; Mrs. W. T. Randolph, treasurer; and Mrs. E. M. McDonald, historian. Mrs. Almand has been an active member of the auxiliary for several years and has also held responsibile offices in other Winder religious and cultural organizations. Mrs. Lucile Kicklighter, director of the Barrow County Public Health Department, was welcomed as a new member.

Mrs. S. T. Ross, in introducing the program, gave an interesting talk on health education and Mrs. C. B. Almand ably discussed nutrition. Mrs. Kicklighter, in telling of her work in the county, said she had immunized 2,000 against typhoid, had treated 91 patients in the venereal disease clinics, had vaccinated several hundred children for smallpox, had conducted two x-ray clinics and was planning to establish a prenatal and well-baby conference. Mrs. Kicklighter asked the auxiliary to furnish a hostess for the conference and Mrs. Almand volunteered her services.

Mrs. W. L. Mathews concluded the program with a prayer for peace and for the men in military services. The hostess served delicious refreshments during the social hour.

COUNCIL MEETING

(Continued from Page 481)

DR. KENNETH S. HUNT reported that the members in the Fourth District had paid dues about as usual with the Secretary-Treasurer of the Association making a continuous drive after them; that they were doing all right.

DR. C. B. LORD reported that he had been working to get delinquent members in the Ninth District to pay dues and had been rather successful.

DR. LESTER HARBIN, second vice president, reported that the affairs of the Association were going all right in Floyd and adjoining counties, also that the young doctors in that section were affiliated with the county medical societies and the Association.

Motion by Dr. Bunce carried to send a synopsis of the minutes of the meeting to absent Councilors.

DR. SHANKS explained about the different classes of members and what was necessary for a member to do to be eligible for either Associate or Honorary membership as shown in the By-Laws of the Association.

W. A. SELMAN, M.D., Chairman.
EDGAR D. SHANKS, M.D., Secretary.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. Abercrombie, M.D., *Director*

SANITATION IN THE NATIONAL DEFENSE PROGRAM

Today the world is in a state of chaos. From day to day we know not what the morrow may bring forth. We pray that we may be delivered from the vengeance of those nations so prompted by greed and lust for power that they would destroy our civilization. Though we are far removed from the scenes of battle we mentally perceive and emotionally feel the reverberations from the crumbling of the very foundations of democracies.

We must not labor under the delusion that we are not at war and that some strange providence will deliver this democracy from the throes of battle and murder. This nation is not yet actually engaged in military combat. We are, however, engaged in war by participating with other nations in order to prevent the fall of civilization.

We should not delude ourselves that we are prepared for war and rest upon our self-complacence. We must awake and withdraw from this shadow of delusion and place upon ourselves the armor of light and march forth guided by a spirit of realism. This country in which we live is the land of the free and its health and morale must be preserved if we would have a sound program of national defense.

A sound national defense program involves more than the actual combative strength of our army, navy, and aviation resources. It means more than guns, ships, and airplanes. Victory eventually is dependent upon human resources. The greatest of human resources is the morale of our people and the health of our nation.

In times of peace we may be justified in presuming that we have comparatively a healthy nation. What we might have under pressure of the exigencies of modern war we dare not predict. That old axiom, "In time of peace prepare for war," is an appropriate slogan for a national defense program. In times of war our normal environment and our usual modes of living may be seriously altered and our entire social structure may be severely tested; therefore we must not become vulnerable to those forces which lower our standards of living, reduce our normal resistance, and deprive us of a modern health protective environment. Today in our national preparedness program we need sanitation because a sanitary environment is the rock upon which a healthy nation is built and upon which it will survive.

History of war is replete with indications of the loss of battles because of plague, cholera, malaria, typhus and other diseases. The apparition of the ghosts of pestilence and famine looms before us as we read of the fall of nations. Those were the dark ages when ignorance and superstition were most effective confederates with pestilence and disease. It was woe unto those who knew not the theory and practice of sanitary science. They sat in darkness and in the shadow of death. They knew not the truth which could make them free.

Today we enter upon a new and strange era. Those of little faith may even say that we enter upon an era of retrogression rather than one of progression because war by battle, murder, and sabotage is inconsistent with modern civilization. We have faith that though today we have sabotage of industrial and military effort yet sanitary science cannot be sabotaged. It will survive for prevention of disease. Should its products, such as public works for health protection, be sabotaged sanitary science will restore these and health protection by sanitation will survive.

Sanitation, from the word "sanitas" meaning health, is the basis for application of sanitary science. Sanitary science is that science which directs the forces of nature for the protection of health. It involves analytically chemistry, bacteriology, and biology as fundamentals for the application of engineering principles. In broad application it involves air, water, food, insects, rodents, sanitation of urban, rural, industrial environments and other numerous phases of sanitation. Engineering today is an essential factor in all methods of endeavor in civic, social, economic, industrial, and governmental progress.

The national defense program of military preparedness has necessarily involved an auxiliary program for the defense of the public health. This has placed a grave responsibility upon those engaged in public health protective programs, national, state, and local. The responsibility which has been thrust upon public health engineering has been far greater than anticipated or ever before experienced.

In this national defense program, sanitation service is a prime factor and necessarily it must proceed not merely undiminished but greatly accelerated. It is essential in order to maintain health, morale, military efficiency and economy. Sanitation more than ever before must be applied to civilian population groups especially adjacent to military cantonments. It must be extended very promptly and effectively to the rapidly growing military populations in various cantonments for army, navy, aviation and allied

industrial populations.

Sanitary service by planning and construction must be performed promptly and efficiently by those engineers engaged in the field of consulting sanitary engineering. This must be accomplished in full cooperation and coordination with engineers engaged in national and state health service. Sanitary engineering investigations, studies, planning and construction of such utilities as are necessary for human sustenance, convenience and health must be rushed. Yet these cannot be rushed to completion at the expense of the public health. Engineers engaged in public health must also investigate, study, plan, advise with engineering consultants and with the sponsors of the projects and finally examine and approve plans and specifications. Such approval must proceed, bearing particularly in mind such sanitary features as may affect the public health.

An analysis of our present national problem should distinguish between a national military program and one of national defense. Whereas military operations involve mainly men and munitions, a total national defense program involves many intangibles which insure final victory. The most essential of these is protection of the public health. In organizing for war only those who are physically fit are selected for military service, therefore physical fitness must be maintained by every means possible for protection of the public health. Military forces must be maintained under a healthful environment. Without such provision we in public health may fail just as those in combative service may fail in the art of military strategy.

It is quite true that war is not always fought and won on the field of battle. Each major war between nations introduces many new and modern methods of war preparation. It seems that today our country is engaged in a rather unique war whereby we do not at present anticipate the loss of soldiers on the field of battle. We who are engaged in public health often speak of our objective as preventive medicine. So may we speak today of our military program as preventive casualty. Should we be successful, and we can only hope to be, then a new chapter will be written in military history.

In our national defense program there are those who are regimented and uniformed for military service and also those whose professional home service is too valuable for such assignment. An efficient public health organization conducted by trained workers should never be jeopardized by a program of selective military service. By no means should public health service be made subordinate to military service because military service either in time of war or peace cannot survive without public health.

Then should we not more highly evaluate that civilian army of public health workers so invaluable in a national defense program? As some one has appropriately said, "The pen is mightier than the sword." So may we say, "The science of health is mightier than the manual of arms."

In such emergency as we now experience, public health is confronted with a dual obligation. Normal public health operations should continue unabated while at the same time military populations must be protected by sanitation. We must also protect the health of those living in what we term extra-cantonment areas.

In the organization of a state health department it is essential that an engineering division be established for the application of such engineering practice and principles most effective for protection of public health. Today in every state health department an engineering division is a component part of the state organization for the purpose of public relations, promotion of sanitation, investigations, studies, planning, official approval of sanitary planning and construction. The specific function of such a division involves too much detail to treat within the limits of this writing.

At a time when expansion of sanitation service is so urgently needed in our state it is unfortunate to lose by military service approximately forty per cent of public health engineering personnel. This seriously taxes facilities to render proper sanitation service needed in a period of emergency. Because of the favorable climatic conditions facilitating training of troops throughout the year, Georgia has been generously supplied with cantonment developments. This has presented many complex engineering problems for the Division of Public Health Engineering.

Problems of sanitation are daily increasing and calling for the most efficient service possible to render in such emergencies. However, as we who remain proceed to render these services we should be proud of our privilege to serve in this great national defense program. Our defense efforts must continue unabated. If it disrupts our normal activities we must make the necessary adjustments willingly with full realization that by so doing we are helping to protect our normal democratic way of life.

L. M. CLARKSON, Director
Georgia Department of Public
Health Engineering.

More than 24 million patient days were spent in tuberculosis hospitals during 1939 according to a special report of the Census Bureau. Vital Statistics, Bureau of Census. September 15, 1941.

The teacher who is not adequately examined for tuberculosis every year may be looked upon as a negligent and indifferent person, one who has little thought for her own health and, worse than that, little consideration for the health of fellow teachers and her students. J. A. Myers, M.D., Jour. Nat'l Ed. Association, Jan., 1939.

NEWS ITEMS

The Georgia Medical Society, Savannah, met on October 14. Dr. J. L. Elliott read a paper entitled *Newer Concepts in the Diagnosis and Treatment of Tuberculosis;* Dr. Lee Howard reported a case, *Two Unusual Bone Tumors.*

The Eighth District Medical Society met at the Blue Heron Club, Blythe Island, Brunswick, October 14. Dr. J. W. Simmons made the "Address of Welcome;" Dr. Louis Smith, Lakeland, "Response to the Address of Welcome." Titles of papers on the program included *Renal Calculi* by Dr. Lovick Pierce, Waycross; *Neonatal Asphyxia,* Dr. A. M. Johnson, Valdosta; *Address,* Dr. Allen H. Bunce, Atlanta, president of the Medical Association of Georgia. Dinner was served at the Club.

Dr. Loree Florence announces the opening of an office in the Southern Mutual Building, Athens. Practice will be limited to the care of infants and children.

Dr. S. C. Rutland, LaGrange, resigned as examining physician for the Selective Service Draft Board No. 1 in Troup County. He served for a year and made an enviable record.

Dr. Raymond V. Harris, Savannah, was a guest speaker at a meeting of the Cincinnati Accident and Health Association held conjointly with the Accident and Health Association of the State of Ohio in Cincinnati, October 31.

Dr. T. J. Floyd, Jr., Griffin, has been elected to fellowship in the American College of Surgeons.

Dr. Rufus A. Askew has resumed the practice of medicine after he served one year in the medical corps of the U. S. Army.

Dr. G. Lombard Kelly, dean of the University of Georgia School of Medicine, Augusta, recommended that the State subsidize young doctors for practice in rural areas to relieve the acute shortage of physicians in such sections.

The family of the late Dr. John Arch McCrea, pioneer citizen and physician of Tifton, made a gift of $1,000 in equipment to the Tift County Hospital to equip a room for eye, ear, nose and throat operations. The room has been dedicated as a memorial to the memory of Dr. McCrea. The gift was made through Mrs. R. C. Balfour, Thomasville.

The visiting staff meeting of Grady Hospital, Atlanta, was held on October 14. Dr. Frank K. Boland spoke on *Important Hospital Business;* Dr. R. L. Whipple reported a *Case Study,* discussed by Dr. Ira Ferguson and Dr. E. B. Agnor. Officers of the visiting staff are: Dr. Ira Ferguson, president; Dr. Paul Elkin, chairman.

The Fifth District Medical Society met in the Nurses' Home of Crawford W. Long Memorial Hospital, Atlanta, October 20. Supper was served by the Woman's Auxiliary. Titles of addresses and papers on the program were: *The Medical Association of Georgia* by Dr. Allen H. Bunce, president of the Medical Association of Georgia, Atlanta; *Address,* Dr. J. A. Redfearn, president-elect of the Medical Association of Georgia; *Observations on the Physical Condition of Georgia's Manpower as Revealed by Selective Service,* Dr. Edgar H. Greene, chairman, Committee on Medical Preparedness, Atlanta; *Public Health Work in Relation to National Defense,* Dr. Louis L. Williams, Jr., medical director U. S. Public Health, liaison officer, Fourth Corps Area; *The Medical School of Oglethorpe University,* Dr. John L. Jacobs, vice president, Medical School, Oglethorpe University; *Report of the Committee on Hospitals, Medical Association of Georgia,* Dr. D. Henry Poer, chairman, Atlanta. Officers of the Society are: Dr. C. W. Roberts, president; Dr. W. E. Upchurch, vice-president; Dr. A. Worth Hobby, secretary-treasurer; Dr. W. A. Selman, councilor; and Dr. M. C. Pruitt, vice councilor, all of Atlanta.

The Bulletin of the Fulton County Medical Society published articles in its October 20 edition from the following contributors: Dr. Allen H. Bunce, Dr. M. C. Pruitt, Dr. W. A. Selman, Dr. A. Worth Hobby, all of Atlanta; Dr. John L. Jacobs, Oglethorpe University; Dr. L. J. Miller, Dr. Hayward S. Phillips, Dr. Geo. A. Williams, Dr. O. O. Fanning, all of Atlanta.

Dr. Howard Hailey, Atlanta, president of the Fulton County Medical Society, was elected president of the Southeastern Dermatological Association at its annual meeting held in Durham, N. C., October 4.

The Bibb County Medical Society met in Ridley Hall, Macon, October 21. *Vaginal Hysterectomy* was discussed. Motion pictures were shown.

Dr. Lewis H. McDonald announces the removal of his office to 812 Medical Arts Building, Atlanta. His practice will be limited to medicine and surgery.

The Association of Military Surgeons of the United States met at Louisville, Ky., October 29-November 1.

The staff meeting of the Georgia Baptist Hospital, Atlanta, was held in the dining room of the Nurses' Home, October 21. Physicians on the Executive Staff are: Dr. George W. Fuller, president; Dr. Hal M. Davison, first vice president; Dr. H. W. Minor, second vice president; Dr. Marion C. Pruitt, secretary; Dr. T. P. Goodwyn, past president. Personnel of committees are: *Records*—Dr. M. I. Lowance, chairman; Dr. J. G. McDaniel, Dr. Hugh Hailey, Dr. Fred Rudder, Dr. J. P. Garner. *Nursing*—Dr. J. C. Blalock, chairman; Dr. H. W. Jernigan, Dr. Zach Jackson. *Rules*—Dr. L. G. Baggett, chairman, Major Fowler, Edgar Boling. *Standardization*—C. W. Roberts, chairman; Dr. F. M. Barfield, Dr. C. F. Barnett, Jr. *Laboratory*—Dr. John Funke, chairman; Dr. A. J. Ayers, Dr. Geo. F. Klugh, Dr. Jack Norris. *Dental*—F. A. Daniel, D.D.S., chairman, Steve Garrett, D.D.S., R. F. Ingram, D.D.S. *Clinico-Pathological*—Dr. Joseph Yampolsky, chairman; Dr. J. C. Massee, Philip H. Nippert, Dr. W. S. Dorough, Dr. A. M. Dimmock, Dr. Lester Brown. *Radiological*—

Dr. O. W. Tulisalo, chairman; Dr. O. D. Hall, Dr. Cosby Swanson. *Intern*—Dr. O. H. Matthews, chairman; Dr. Ben Hill Clifton, Dr. O. S. Cofer. *Curriculum*—Dr. W. F. Wells, chairman; Dr. W. A. Selman, Dr. Claude Griffin. *Surgical*—Dr. B. L. Shackleford, chairman; Dr. A. S. Sanders, Dr. Joe Boland, Dr. W. A. Kelley, Dr. H. H. Askew.

THE GEORGIA MEDICAL SOCIETY, Savannah, met on October 28. Dr. J. W. Daniel read a paper entitled *Clinical Reports on the Use of Nicotinic and Cevitamic Acids in the Treatment of Bright's Disease.* Dr. J. C. Metts reported a case, *Guillain-Barre Disease.*

THE RICHMOND COUNTY MEDICAL SOCIETY, Augusta, met on October 14. Dr. Fred W. Rankin, Lexington, Ky., president-elect of the American Medical Association, was guest speaker. His subject was *Modern Management of Lesions of the Lower Gastro-Intestinal Tract.* Dr. S. J. Lewis, Augusta, president of the society, invited all physicians in and near Augusta to attend the meeting.

THE BIBB COUNTY MEDICAL SOCIETY met in Ridley Hall, Macon, November 4. Dr. R. M. Reifler, Chicago, spoke on *Drug Eruptions*—illustrated with lantern slides.

THE BOARD OF TRUSTEES OF GRADY HOSPITAL, Atlanta, re-elected the following as an Advisory Board: Dr. Ben H. Clifton, Dr. J. R. McCord, Dr. O. H. Matthews, Dr. Russell H. Oppenheimer, Dr. Dan C. Elkin, and re-elected Dr. R. H. Fike, superintendent of Steiner Clinic.

THE EXECUTIVE COUNCIL OF OGLETHORPE MEDICAL SCHOOL to direct and administer the affairs of the school will be composed of Dr. Frank Eskridge, Dr. John L. Jacobs, Dr. Archibald Smith and Dr. L. N. Turk.

THE WARE COUNTY MEDICAL SOCIETY met on November 5 in the dining room of Hotel Ware. Dr. B. H. Minchew and Dr. B. E. Collins were hosts at dinner. Dr. Dean Baldwin Cole, Richmond, Va., assistant professor of medicine at the Medical College of Virginia, spoke on pneumonia.

THE FULTON COUNTY MEDICAL SOCIETY met in the Nurses' Home, Crawford W. Long Memorial Hospital, Atlanta, November 3. Dr. Stephen T. Brown and Dr. S. Ross Brown reported cases of *Blood in the Urine*, discussed by Dr. W. E. Upchurch and Dr. M. K. Bailey. Dr. Carter Smith, Dr. H. Cliff Sauls and Dr. Chas. F. Stone reported cases of *Sub-Acute Bacterial Endocarditis*, discussed by Dr. J. E. Paullin and Dr. Arthur J. Merrell. The meeting of the Society held on November 17 consisted of a *Symposium on the Relation of Social Welfare Work to the Practice of Medicine.*

THE STAFF MEETING OF EMORY UNIVERSITY HOSPITAL was held November 4. Dr. Roy R. Kracke and Dr. Byron Hoffman reported a case, *Paroxysmal Nocturnal Hemoglobinuria (Marchiafava, Michelli Syndrome).* A moving picture, *Human Fertility*, was shown.

THE SEVENTH ANNUAL CLINICAL CONFERENCE of the Sheffield Cancer Clinic at the Georgia Baptist Hospital, Atlanta, will be held from two to four o'clock, Friday afternoon, Nov. 21, 1941, in the Sheffield Auditorium. Dr. Geo. H. Semken, of New York, who has recently furnished the platform of the auditorium and presented the clinic with valuable educational material will conduct the exercises. Many interesting patients will be presented and discussed. A most cordial welcome is extended to all physicians to be present as these conferences have proven of exceptional educational value.

THE MUSCOGEE COUNTY MEDICAL SOCIETY met at the Ralston Hotel, Columbus, October 28. Dr. M. Y. Dabney, Birmingham, Ala., spoke on *The Story of Breast Cancer.*

DR. T. V. WILLIS, Brunswick, has been elected to fellowship in the American College of Surgeons.

DR. R. H. OPPENHEIMER, Emory University, has been recommended by the Association of Medical Colleges to serve on the Advisory Committee for the Fourth Corps Area.

DR. JOHN A. HEMBREE, formerly stationed at Camp Shelby, Mississippi, and who served as an army surgeon, has moved to Pearson.

DR. F. A. BRINK, formerly of Blackshear and Homerville, has moved to Jacksonville, Florida.

OBITUARY

Dr. Jack Richard McMichael, Quitman; member; University of the South Medical Department, Sewanee, Tenn., 1907; aged 57; died on October 6, 1941, of heart disease. He was born and reared in Buena Vista. After he graduated in medicine he began practice in Perry, Florida, then moved to Quitman where he practiced for 25 years. Dr. McMichael was chief surgeon for the South Georgia Railway and local surgeon for the A. C. L. Railway. He served at one time on the State Board of Health and was chairman of the Brooks County Board of Health for many years. He organized clinics where the physicians gave free service. He was a member of the Brooks County Medical Society, American Medical Association and the Methodist Church. Surviving him are three daughters, Mrs. Wm. Gilfoyle, Radford, Va.; Mrs. Grier Martin, Bristol, Va.; Mrs. Judson Reams III, New York City; one son, Jack McMichael, New York City. Funeral services were held in the Methodist Church at Quitman. Burial was in the Columbus City cemetery.

Dr. James Poesy Wood, Cedar Grove; member; University of the South Medical Department, Sewanee, Tenn., 1901; aged 71; died on September 29, 1941, in his home. He was born at LaFayette and moved with his parents to Cedar Grove in boyhood where he was reared and attended the schools of that community. His father was an educator and established the first high school in that section. Dr. Wood began the practice

of medicine at Whiteside, Tenn., then practiced with his brother, the late Dr. Frank Wood, in Chattanooga, Tenn., later he returned to his old home, Cedar Grove. He was kind and genial and a favorite with people who knew him. He was a member of the Walker County Medical Society, F. & A. M. and the Antioch Baptist Church. Surviving him are one niece, Mrs. A. H. Camp, Cedar Grove; and a brother-in-law, Byron Kell. Rev. S. R. Tucker and Rev. Steve Hamic officiated at the funeral services conducted at Antioch Baptist Church. Burial was in the churchyard.

ARTHUR CLIFTON BRANCH, M.D.

Arthur Clifton Branch was born in Liberty County, now Long County, Georgia, February 5, 1883. He graduated in medicine from Tulane University, Louisiana, in 1910. After practicing his profession in his home county and in Florida for a number of years, he moved to Glennville, Tattnall County, about fifteen years ago, and became a member of the Tattnall County Medical Society. To this body he was faithful, and he was always helpful in the deliberations and activities of the organization.

Dr. Branch was pleasant in all his contacts with the public, and skillful in his ministrations to the sick. His patients loved him and trusted him, He held the highest respect of the public. He was charitable and helpful in every walk of life.

Dr. Branch died Tuesday, September 30, 1941. Thus ended a life full of usefulness and kindness. Yet, in the strictest sense, his life is not ended. His influence will be felt by the public for years to come.

By the Tattnall County Medical Society it is

Resolved, That in the death of Dr. Branch this Society has lost a valuable member, on whose judgment we often relied. It is further

Resolved, That his family, to whom we offer our most sincere sympathy, has lost a devoted husband and father. It is further

Resolved, That the public has lost a valuable friend to whom hundreds have turned in time of distress. It is further

Resolved, That a copy of these resolutions be given to the family, that a copy be spread on our minutes, and that a copy be sent to The Journal of the Medical Association of Georgia for publication.

Done by order of the Tattnall County Medical Society in session in Reidsville, Georgia, October 9, 1941.

J. M. Hughes, M.D., Secretary.

IN MEMORIAM

Whereas, an All-Wise Providence has seen fit to remove from our midst Dr. George Albert Traylor, it is right and proper that we now pause to pay tribute to the memory of this fallen friend and brother.

Doctor Traylor was born in McCormick, S. C., Oct. 7, 1879, and received his early education and preparation for college in that community. In due course he entered Furman University, and was graduated by that institution in 1900.

Always industrious, young Traylor was careful to see that his vacations were occupied by useful employment. One summer found him as an express messenger on a railroad, another witnessed his pleasantry behind the desk of a resort hotel. By nature frugal, his industry enabled him to obtain an excellent foundation for his later pursuits.

George Traylor was unusually devoted to his father, who was a physician, and was his close companion during childhood and later when infrequent opportunities permitted him to be at home. The loss of his mother during boyhood doubtless enhanced the endearment between father and son, and was probably a factor in deciding him to follow in his father's footsteps. At any rate, he was fond of accompanying his father on his rounds, and early evinced a desire to study medicine. It was but natural, then, that on completing his literary course his efforts to become a physician began. Enrolling as a student in the Medical Department of the University of Georgia—now the University of Georgia School of Medicine—he was an outstanding member of his class throughout the four years of study. He was graduated in 1904.

Following his internship, Doctor Traylor began the practice of medicine in Augusta. His professional career was characterized by great carefulness in his work and strict attention to duty. He labored long and hard to see that those entrusted to his care would receive not only the best treatment that he could render but the best treatment that could be rendered. That he was eminently successful in this was attested by the large clientele that he had amassed. From all walks of life and conditions of society the sick and afflicted sought his advice and help. It is probable that the strain occasioned by this extensive practice was an important factor in shortening his life.

Among other activities, Doctor Traylor found time to be of service as a teacher in the University of Georgia School of Medicine. For many years he held posts of distinction in this institution, and at the time of his passing was a clinical professor of surgery.

Doctor Traylor was never sufficiently interested in any one of the specialties to limit his practice, but preferred always to remain a general practitioner. It is probable that he had a firm conviction that in this broad field he would be of greater service to his fellowman. Some of his professional friends and associates have expressed the belief that he exemplified the ideals of a family physician to a greater degree than anyone they had ever known.

As a member of the Medical Reserve Corps, Doctor Traylor was called to active duty early after the United States entered the World War. His assignments included the management of hospitals in both Fort Oglethorpe, Ga., and New York. His rank on discharge from the army was that of lieutenant-colonel.

During his active years he often took leave from crowded activities to attend various medical meetings, and at one time he journeyed to Europe to observe the

methods in vogue there. He was the recipient of many medical society honors, the last being the Presidency of the Medical Association of Georgia.

Always courteous and accommodating, Doctor Traylor was a kindly man. He was deeply conscious of the rights of others, and was ever-ready to espouse a cause which he considered right. In his gentleness and fair dealings he had endeared himself to a host of friends who will find his place indeed difficult to fill. In the language of the poet:

"He was a man, take him for all in all,
I shall not look upon his like again."

THEREFORE BE IT RESOLVED, by the Richmond County Medical Society, that in the death of Dr. George Albert Traylor the medical profession has lost the membership of a superb gentleman, an ardent scholar and an eminent physician.

RESOLVED, FURTHER, that these resolutions be incorporated in the minutes of this Society, and that a copy of them be forwarded to the family of the deceased, and that a copy be furnished to each of the Augusta daily newspapers and THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA.

Respectfully submitted,
S. J. LEWIS, M.D., Chairman
H. M. MICHEL, M.D.
Oct. 14, 1941 H. P. HARRELL, M.D.

THE SECOND X-RAY STUDY

(Continued from Page 476)

these lesions, which often reach an inoperable stage before the victim consults a physician.

Probably the ideal management of doubtful cases would call for a second x-ray study in not more than a week. Further delay, for further studies, should not be risked without the approval of the surgeon who is to operate. It must be emphasized that any delay at all is permitted only to clear up doubt that may exist.

The argument is too frequently heard that gastric lesions requiring such speed in diagnosis are too far advanced for operation anyway. Such defeatism can only retard the slow progress medicine is making against this particular form of malignancy. The increasing number of successful gastrectomies in this region should sufficiently refute this attitude.

The Medical Association of Georgia will hold its Ninety-Third Annual Session at the Bon Air Hotel, Augusta, April 28, 29, 30—May 1, 1942. Special conservative rates have been made for our members.

The staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on November 13.

BOOK REVIEWS

Office Endocrinology. By Robert B. Greenblatt, Professor of Experimental Medicine, University of Georgia School of Medicine. Published under auspices of University of Georgia by Walton Printing Company, Augusta, Georgia. This book may be purchased from the Librarian of the Medical School for $2.00 per copy.

This is a concise little booklet of only 105 pages, packed with the latest knowledge on endocrinology. Much of it is the original work of Dr. Greenblatt. It was written primarily at the request of his Postgraduate Class in Endocrinology as a reference for them.

It discusses the following subjects: the climacteric, the vaginal smear, embryologic and histologic considerations of the ovary, suction curettage, the gonadotropins, dysmenorrhea, menstrual molimina with hypermenorrhea, virilism, diethylstilbestrol, hypogonadism, habitual abortion, practical application of the Friedman test, the nature of so-called syncytioma, the mechanism of uterine bleeding, the therapy of menometrorrhagia, hormonal therapy of fibromyomas of the uterus, the influence of the glands of internal secretion on the breast, sterility, amenorrhea, pruritus vulvae as related to endocrine disturbances, nausea and vomiting of pregnancy, indications and customary dosage of various hormone preparations, incretory tumors of the ovary, sexual libido in the female.

There are several illustrated drawings.

Theoretical discussions are not included, the entire book being in an abbreviated form, but the various tests and diagnostic procedures are thoroughly explained and the use of the newer hormones in the different conditions is discussed. Several case reports are included.

It is written in Dr. Greenblatt's Oslerian style, and he very aptly quotes the Bible, Shakespeare, and Robert Browning, and has a foreword by the erudite Dean Kelly of the University School.

Every doctor interested in this subject should have a copy on his office desk for ready reference.

J. C. PATTERSON, M.D.

Shock Treatment in Psychiatry, by Lucie Jessner, Ph.D., M.D., and V. Gerand Ryan, M.D. Introduction by Harry C. Solomon, M.D. Grune and Stratton, Inc., 443 Fourth Ave., New York, N. Y., 1941. 155 pages. Cloth, $3.50. This book is a brief, practical review of insulin, metrazol convulsive and electric convulsive therapy, which are the three methods of shock therapy in most general use in the treatment of mental diseases. There is carefully outlined the details of procedure of each method. The clinical symptoms of hypoglycemia as described are instructive, and also of interest are the instructions regarding indications and contraindications in the use of each method, together with an evaluation of the results obtained with each method.

ALBERT F. BRAWNER, M.D.

GEORGIA DEPARTMENT OF PUBLIC HEALTH GEORGIA HOSPITAL ASSOCIATION GEORGIA STATE NURSES' ASSOCIATION

The Medical Association of Georgia; the Georgia Public Health Department; the Georgia Hospital Association; national guests and individual friends, cooperated in a fine spirit to make the thirty-fifth annual joint convention of the Georgia State Nurses' Association, held Oct. 26-29, at Gainesville, a real service to all persons engaged in health and welfare of Georgia. Among the outstanding speakers were: Dr. Edgar Greene, Chairman, Medical Preparedness Committee, Medical Association of Georgia. Dr. Greene's large circle of friends throughout Georgia gave him a close ear. Having served in the World War, Dr. Greene outlined a concise and definite approach to medical preparedness, giving a stimulus to nurses who must play a major part in this program.

Dr. Edwin Watson, Director of Maternal and Child Hygiene Service, Georgia Public Health Department, discussed the plans which the Medical Emergency Council for Civilian Defense have outlined whereby the various State Defense Councils representing special groups can coordinate their efforts in order to present an "All Out For Defense" front. Mr. Channing Cope, Field Aide, Georgia Council for National Defense, was an outstanding speaker. Dr. L. M. Petrie, Director of Industrial Hygiene, reviewed the State Health Department's plans for developing a health service for industries. The Industrial Nurses' Section pledged their assistance in making this program 100 per cent for National Defense. Miss Durice Dickerson, Special Agent, U. S. Public Health Service, discussed the activities of G.S.N.A. in relation to the National Nursing Council for Defense and the Georgia State Nursing Council for National Defense, stating that preparing properly for defense means much more and harder work especially in the recruiting of well qualified students for the accredited schools of nursing; teaching and supervising the large number of voluntary nurses' aides; supplying nurses for governmental nursing service and at the same time *maintaining high standards* of service.

Dr. Cleveland D. Whelchel of Gainesville gave an inspiring lecture on "Surgery in the Treatment of Pulmonary Tuberculosis," showing x-ray films and living results. Dr. Whelchel's generous contribution to this field of surgery is well known and appreciated throughout this country. The Rotary, Lions and Kiwanis clubs of Gainesville contributed to the convention as did all industrial groups.

Miss Emily Woodward, Director of the Georgia Forum, was a guest on the Georgia League program. Miss Woodward urged nurses as a group to participate in the total program for preparedness on a long term planning basis, making the statement that "Nurses as a group are too segregated and do not participate as they could in civic activities."

Radio Program

Some of the main addresses were broadcast over the new WGGA station at Gainesville. Over three hours of the discussions were heard by the public through this channel.

Special Convention Edition of the Gainesville News

Perhaps the largest special convention edition newspaper published in Georgia was given the Georgia State Nurses' Association by the Gainesville News. Articles from all fields of health were published. In this way a complete review of the entire program was given the public. Photographs of national and local guests as well as officers of the G.S.N.A. were used, making an attractive newspaper, complimentary copy of which was given each convention guest or member of G.S.N.A. as they registered.

Concert at Brenau

G.S.N.A. was delightfully entertained in the auditorium at Brenau College, Gainesville, by a concert which gave a cross section of the musical talent of Brenau. This is the first time G.S.N.A. has been privileged to such a convention program.

Riverside Parade

The Riverside Cadets and Military band passed in full dress parade before the convention and contributed generously otherwise to the program.

Exhibits

The educational representatives from Saunders, Macmillan, Mosby, Lippincott and Davis publishers displayed nurses' textbooks and other helpful publications at the Dixie-Hunt Hotel during the convention.

Demonstrations of S.O.S. Dry Ice Oxygen equipment were presented by Dr. T. T. Crew to over 200 nurses and guests registered at the convention.

Exhibits from National Nursing Headquarters as well as State Nursing groups gave members valuable reference material.

National Guests

Miss Mary Margaret Muckley, Executive Director, The Nursing Bureau of Manhattan and Bronx, New York City; Miss Harriet Frost, Associate Director, The New York Hospital School of Nursing, N.Y.C.; Miss Dorothy Deming, General Director, The National Organization for Public Health Nursing; and Miss Katherine Myers, Field Representative, American Red Cross Nursing Service, Washington, D. C.

Mrs. Albert Hardy, Jr., of Gainesville, and her able co-workers served on the arrangements committee.

The registrations ran several over the the last convention total. Augusta was selected for the 1942 convention city.

If pulmonary tuberculosis is an insidious personal prohlem to those growing old, it is also one of the major unsolved health problems of the present day. Any effective approach to it must eliminate the present common attitude of simply sighing at the aged tuberculosis patient with positive sputum. J. T. Freeman, M.D., and C. A. Heiken, M.D., Amer. Jour. of Med. Sciences, July, 1941.

The tuberculosis problem in industry cannot be divorced from tuberculosis in the general population. Saranac Lake Symposium on Tuberculosis in Industry, 1941.

The Southern Medical Association met in St. Louis, Nov. 10-13.

"*Urology Award*: The American Urological Association offers an annual award 'not to exceed $500.00' for an essay (or essays) on the result of some specific chemical or laboratoryy research in Urology. The amount of the prize is based on the merits of the work presented, and if the committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. Essays shall be in the hands of the Secretary, Dr. Clyde L. Deming, 789 Howard Avenue, New Haven, Conn., on or before April 1, 1942."

SQUIBB ROUNDS OUT ANTI-ANEMIA PRODUCTS WITH CAPSULES FERROUS SULFATE WITH B_1

To supplement their line of products for use in the treatment of anemia, E. R. Squibb & Sons, New York, have introduced Capsules Ferrous Sulfate with B_1. Each capsule contains 3 grains ferrous sulfate exsiccated (approximately 60 mg. iron) together with 1 mg. pure crystalline thiamine hydrochloride (333 U.S.P. XI units vitamin B_1).

Capsules Ferrous Sulfate with B_1 Squibb are designed for oral administration in the prophylaxis and treatment of secondary anemia, especially where the addition of vitamin B_1 is considered desirable, as during pregnancy and lactation, infancy and childhood, and in patients with anorexia associated with thiamine lack. They may also be useful as a supplement to liver therapy in the treatment of pernicious anemia when an iron deficiency also exists.

The suggested daily dosage for adults is 3 capsules, possibly increased to 4 or 5 during pregnancy, and for children, 1 or 2 capsules. They are preferably taken in divided doses 15 to 30 minutes before meals.

Capsules Ferrous Sulfate with B_1 Squibb are supplied in bottles of 100 to 1,000.

If they could talk, Council Seals would say:

"When you see one of us on a package of medicine or food, it means first of all that the manufacturer thought enough of the product to be willing to have it and his claims carefully examined by a board of critical, unbiased experts. . . . We're glad to tell you that this product was examined, that the manufacturer was willing to listen to criticisms and suggestions the Council made, that he signified his willingness to restrict his advertising claims to *proved* ones, and that he will keep the Council informed of any intended changes in product or claims. . . . There may be other similar products as good as this one, but when you see us on a package, *you know*. Why guess, or why take someone's self-interested word? If the product is everything the manufacturer claims, why should he hesitate to submit it to the Council, for acceptance? Mead Johnson Products are Council-Accepted.

SOLUTION ADDED TO SQUIBB GROUP OF AMINOPHYLLINE PRODUCTS

To provide for all forms of administration of aminophylline, E. R. Squibb & Sons, New York, have added Solution Aminophylline Squibb to their previously introduced line of Tablets and Powder. The Solution is supplied in 2 cc. ampuls containing per cc. 3¾ grains (0.25 gram) of aminophylline in sterile aqueous solution for *intramuscular* injection; and 10 cc. ampuls containing ⅜ grain (0.025 gram) per cc. of aminophylline in sterile aqueous solution for *intravenous* injection.

Aminophylline (theophylline with ethylene diamine U.S.P. XI) is rapidly absorbed, producing prompt physiologic response. Recognized indications for the use of aminophylline are: as a diuretic and myocardial stimulant; in bronchial asthma; Cheyne-Stokes respiration; paroxysmal cardiac dyspnea; and for the relief of pain due to coronary sclerosis.

Whether the drug should be given orally, intravenously or intramuscularly depends upon the judgment of the physician.

"Although vegetarianism has been extolled and meat criticised in the past, human experience through history has shown meat to be a valuable food," Doris W. McCray, Cedar Rapids, Iowa, says in a recent issue of *Hygeia, The Health Magazine*. "The composition of meat is more nearly like the proteins found in the human body than are the proteins of nuts and beans.

Home of

BROWNLEE & LIVELY

Certified Milk

Briarcliff Road

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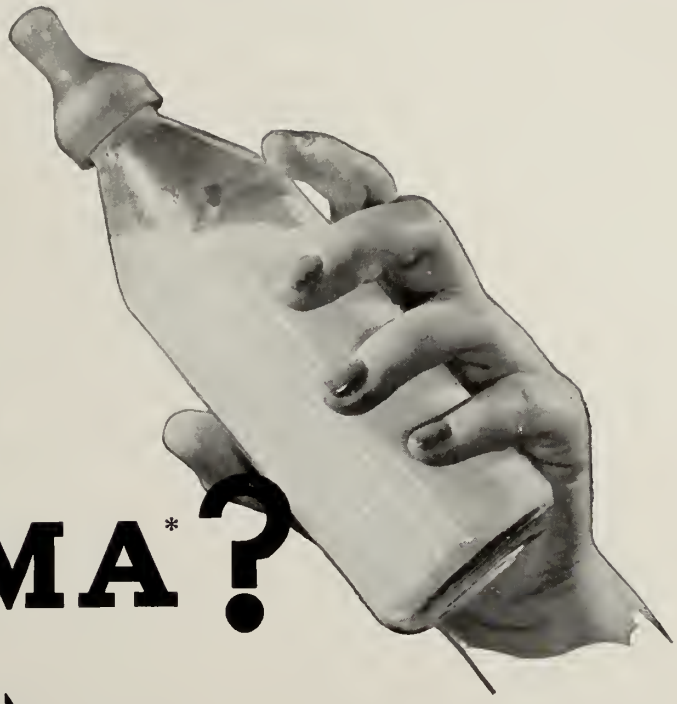
EVER FEED SMA*?



When you prescribe S.M.A. for the bottle-fed infant you give an easily digested fat, a protein that provides the amino acids essential for adequate nutrition and growth and *lactose,* a physiological carbohydrate, in correct proportion to the nutritional requirements of the normal full-term infant.

In addition, when prepared according to the usual dilution for feeding, each quart of S.M.A. contains:

7500 international units vitamin A activity
200 international units vitamin B_1
400 international units vitamin D
10 mg. Iron and Ammonium Citrate

S.M.A. provides easily digested fat and protein of full biological value in correct proportion to the nutritional requirements of the normal full term infant. Therefore, the only carbohydrate in S.M.A. is Lactose . . .

Normal infants relish S.M.A. . . . digest it easily and thrive on it.

" " "

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SQUIBB NOW PACKAGES DIPHTHERIA TOXOIDS ACCORDING TO NEW RECOMMENDED DOSAGES

Following the recommendation of the Committee on Administrative Practice of the American Public Health Association of two doses of diphtheria toxoid alum precipitated, or three doses of diphtheria toxoid, for immunization against diphtheria, E. R. Squibb & Sons, New York, are now supplying Diphtheria Toxoid Alum Precipitated Squibb in two-dose packages and Diphtheria Toxoid (Ramon) Squibb in three-dose packages.

The new recommended dosages are the outgrowth of comprehensive studies which have shown conclusively that a higher percentage of children receiving 2 x 1 cc. doses of diphtheria toxoid alum precipitated, or three doses of diphtheria toxoid, will be subsequently Schick-negative, than those children to whom only 1 cc. of diphtheria toxoid alum precipitated or 2 x 1 cc. of diphtheria toxoid—the heretofore commonly used dosages—is administered.

Squibb diphtheria toxoids are now packaged as follows:

Diphtheria Toxoid Squibb (Anatoxin Ramon):

3 x 1 cc. vials—(one complete immunization)
30 cc. vial — (ten complete immunizations)
1 cc. vial for reaction test.

Diphtheria Toxoid Alum Precipitated Refined Squibb:

2 x 1 cc. vials—(one complete immunization)
2 x ½ cc. vials—(one complete immunization)
10 cc. vial — (five complete immunizations)
5 cc. vial — (five complete immunizations)

SQUIBB STILBESTROL RELEASED FOR SALE

After two years of clinical trial, during which time over a hundred papers were published reporting studies in which it was used, Stilbestrol, manufactured by E. R. Squibb & Sons, New York, is now offered for sale to the druggists of the land. Stilbestrol is a synthetic estrogen possessing the physiologic properties of estrogenic substances derived from natural sources. Chemically, it is alpha, alpha'-diethyl-4, 4'-stilbenediol. It is also called diethylstilbestrol.

Stilbestrol orally has a ratio of effectiveness to intramuscular injection much superior to that possessed by natural estrogens. It has another advantage over the natural estrogens in that it is considerably more economical.

Striking therapeutic results have been obtained with estrogenic substances, whether natural or synthetic, in alleviating the vasomotor symptoms of the menopause. In proper dosage, they are also effective in treating gonorrheal vaginitis in children, senile vaginitis and kraurosis vulvae and pruritus vulvae of the menopause. It may also be useful in preventing and relieving painful engorgement of the breasts during suppression of lactation.

Squibb Stilbestrol is supplied in three forms:

Compressed tablets, either uncoated or enteric coated (for oral administration) containing 0.1 mg., 0.5 mg., 1.0 mg. or 5.0 mg. in bottles of 25, 100 and 250.

Stilbestrol in Oil (for intramuscular injection) in 1-cc. ampuls containing 0.2 mg., 0.5 mg., 1.0 mg. or 5.0 mg. per 1 cc. respectively, in boxes of 6, 25 and 50.

Pessaries (for vaginal medication) in two sizes: 0.1 mg. for children and 0.5 mg. for adults, both in boxes of 12 and 50.

In common with other highly potent chemotherapeutic agents, Stilbestrol should be used only by or under supervision of a physician. Literature describing its dosage, indications and precautions is available to physicians upon request.

RED CROSS BLOOD COLLECTIONS TO GO ON NATION-WIDE BASIS AT REQUEST OF ARMY AND NAVY

At the request of the Surgeon General of the Army and Navy, the American Red Cross will extend its blood collection program to key metropolitan cities on the Pacific coast and in the midwest.

At present seven eastern cities are engaged in the project. Collections are shipped by refrigerated express to a processing depot at Philadelphia where blood is reduced to dry plasma form for use by the Army and Navy. Arrangements are being worked out with biological laboratories in the midwest and Pacific areas for processing blood collections received from the cities to be added,

Plans for extending the collection program following completion of a "pilot" project in which blood donors of the seven eastern cities filled an initial request of the Navy for 15,000 donations. It was explained that most of these, after being processed and hermetically sealed, already have been placed aboard U. S. fighting ships engaged in the Atlantic sea patrol.

The present emergency requires that the Red Cross take every necessary step to provide as soon as possible an adequate supply of plasma for the Army and Navy. Some 200,000 donors will be needed to fill current requests of our military and naval forces. Extension of the collection program will enable the Red Cross to meet these requests.

Those who have given their blood can have the satisfaction of knowing that it is today on the high seas safeguarding the lives of our sailors. Donations in increasing numbers not only will enable the Red Cross to complete its purpose of supplying adequate supplies to our naval vessels, but also will make it possible to furnish medical units of the Army the amounts requested.

The first step in widening the blood collection program will be to set up collection depots at Los Angeles, San Francisco, Chicago, Detroit, St. Louis, Cleveland, Indianapolis, Cincinnati and Pittsburgh. Those cities now engaged in the program include New York, Boston, Philadelphia, Baltimore, District of Columbia, Buffalo and Rochester (N. Y.). As the program gains momentum, other cities will be added.

Biological laboratories undertaking the processing of the blood have agreed to do so on a non-profit basis.

"PETROLAGAR" CHANGED TO "PETROGALAR"

A change in the spelling of the name "Petrolagar" to "Petrogalar" has been announced by the Petrolagar Laboratories. The change is being made in both the product name and corporate name.

Company officials, while pointing out that the adoption of the new spelling does not affect the formula or quality of the product in any way, said that they considered the change advisable to avoid any possible misconception as to the nature of the product.

"Because it has never been the intention of the company to imply that agar-agar was used for any other purpose than as an emulsifying agent, the last syllable of the former name has been altered in favor of the new spelling," officials said.

Officials emphasized that no change has been made in the size of the package, price, or formulae and that each of the five different types of the product will carry the new spelling "Petrogalar". The new corporate name is: Petrogalar Laboratories, Inc., and the address remains, 8134 McCormick Boulevard, Chicago, Illinois.

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XERODERMA PIGMENTOSUM

Report of a Case

EDWARD BOSWORTH, M.D.
Rome

Xeroderma Pigmentosum is a rare, familial, skin disease of great theoretical interest, since it represents one of a group of disorders in which the underlying cause is apparently that of an extreme photosensitivity of the skin. The offending agent is most probably the ultraviolet part of the solar spectrum. Typical changes have been brought about in susceptible skins by the use of artificial ultraviolet radiation. It should be mentioned, however, that all investigators are not in complete agreement with this pathenogenesis.

Heredity and consanguinity of parents are prominent features in these patients, and the inherited factor behaves in accordance with a simple recessive Mendelian trait, probably lying within a single gene. Siblings are frequently affected. Fully developed cases appear early in life and are occasionally in terminal stages before the end of the sixth year, although survival may be much longer.

The initial changes are those of erythema, mottling, puffiness, pigmentation, and slight scaling of the skin on exposure to the sun's rays, usually in the first year of life. These changes are confined to exposed parts of the body: the face, neck and dorsa of the arms and hands being most frequently affected. If exposure persists these changes are followed by more active scaling, large freckle-like spots, and flat wart-like growths. Photophobia and conjunctivitis also usually appear at this stage. Still further actinic trauma leads to pearl-like areas of atrophy, telangiectases, deeper pigmentation with large freckled and brown spots, and bulky hyperkeratotic areas which eventually pass in carcinoma. Atrophic contractures of the nose, mouth and eyelids, with ulceration and opacity of the cornea may occur. Death from local destruction, sepsis, and metastatic squamous carcinoma finally ensues. The following is a typical case report:

R. K., aged 4, came in complaining of skin trouble and sore eyes. At the age of 1 he had had an attack of colitis lasting six weeks with passage of foul smelling stools, blood and mucus. Following this attack his diet had consisted of sweets, with no fruits or vegetables and almost no protein. After his diarrhea had stopped his skin began to darken and roughen and both of these symptoms grew gradually worse. At the age of 3 wart-like growths appeared about the face and neck. At first these would drop off, only to recur; later they became permanent. Most of these growths had become infected and had gradually assumed a very offensive odor. Three months before entry, at the age of 4, ectropion and extreme photophobia were noted.

The patient's birth history and first nine months of life were medically uneventful. He was breast fed until 10 months old and had not been sick until the attack of colitis. No other members of the family had any skin trouble and there were no extremely freckled relatives. The parents were second cousins.

Physical examination showed a poorly nourished little boy of 4, who held his head down because of marked photophobia. The scalp was free from lesions. The face and neck showed an extreme roughening of the skin with areas of light yellowish-brown pigmentation, ranging from small freckle-size up to 1.5 cm. each, in diameter. There were interspersed areas of white, glistening, depressed atrophy, telangiectasis, and hyperkeratosis of all degrees from small follicular size to large friable, crusted, wart-like growth, measuring up to 1.5 cm. in diameter. On the neck these had a peculiar horn-like appearance and on the tip of the nose there was a large, somewhat pedunculated, growth measuring about 3 cm. in diameter. There was noted marked bilateral blepharitis and conjunctivitis, with ectropion of the right lower lid, and ulceration and opacity of the right cornea. The posterior cervical nodes were enlarged and tender. There was no other lymphadenopathy. There were no lesions of the nasal or the buccal mucous membranes. The pharnyx was not

From the Harbin Hospital, Rome, Ga.

Figure 1

Figure 2

remarkable and the tongue showed no evidence of atrophy. Examination of the heart, lungs and abdomen was negative; the liver and spleen were not felt. The genitalia were normal; both testes were descended. The skin of the dorsa of the forearms and thighs and entire surfaces of the lower legs showed freckle-like pigmentation, roughening and scaling, but there was no atrophy or hyperkeratosis. Examination of the urine was negative, the hemoglobin was 70 per cent, and the red blood count was 3.78 millions. The blood Kahn test was negative. A biopsy of the lesion on the nose showed epidermoid carcinoma.

The patient's disease was explained to his parents with instructions for avoiding exposure to the sun and protective lotion, and high vitamin and protein diet was prescribed. Several of the larger areas of hyperkeratosis, including the entire nose lesion, were removed with the cautery under pentothal anesthesia. When last heard from no new areas suspicious of skin cancer had developed. The patient was gaining weight.

Comment

The diagnosis in such cases is usually unmistakable. The age and striking appearance of the skin with pigmentation, excessive roughness, atrophy, telangiectasis and hyperkeratosis are quite characteristic, although radiation dermatitis must be ruled out in older patients. The skin picture of senile atrophy is also closely simulated but the age of the patient usually precludes this diagnosis. The prognosis is usually grave, nor is treatment of much avail. Protection against the sun's rays and local destruction of skin lesions are of value and may prolong life.

PLIOFILM AIDS WET DRESSINGS

The difficulties of maintaining continuous wet dressings on the hands or feet in certain skin diseases are overcome by the use of mitts and socks made of a material called pliofilm, Garold V. Stryker, M.D., and Joseph Grindon, Jr., M.D., St. Louis, report in *The Journal of the American Medical Association* for July 13.

"This material," they say, "is moisture proof, oil proof, odorless, nonirritating, pliable, thin, durable, tear resistant sewable, heat sealing, not uncomfortably warm (as are rubber mitts and socks), noninflammable, resistant to weak acid and alkali and inexpensive.

"Although rubber gloves and socks are effective for the purpose, patients object because of constriction and excess heat.

"In order to insure comfort the pliofilm coverings should be large enough to cover the dressings and at the same time permit some movement of the fingers and toes. To prevent drying, they must come in contact with the skin of the wrist or ankle above the dressings."

Calling for the united support of the entire nation the American Red Cross has appealed for a special war fund of $50,000,000 to carry on and expand its work among Army and Navy personnel. The appeal was broadcast to the nation through major radio networks by Red Cross Chairman Norman H. Davis.

MEMORIAL EXERCISES

B. H. Minchew, M.D.
Waycross

The life given in service to humanity brings many of the attributes of what we are told is the greatest virtue—*love*. Sympathetic with the sorrowful, kind to the needy, generous with the oppressed, devoted to the just, loyal to the right, and living by the Golden Rule. Practicing a science in the hope of sustaining the force of life and prolonging the happiness of health. Such, undoubtedly, was the thought of the beloved novelist and poet of Scotland, who revealed himself so much in his writings as one of high intellectual spirit, boundless charity, and a combination of wisdom, loyalty and adventure — Robert Louis Stevenson, when he wrote the eulogy of the doctor:

"There are men and classes of men that stand above the common herd: the soldier, the sailor, the shepherd not infrequently, the artist rarely, rarelier still the clergyman, the physician almost as a rule. He is the flower of our civilization and when that stage of man is done with, only to be marveled at in history, he will be thought to have shared but little in the defects of the period and to have most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art and never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage. So it is that, he brings air and cheer into the sick room and often enough, though not so often as he desires, brings healing."

In our effort to sustain and prolong life, we are forced to reflect upon the life hereafter. We would have little to strive for as physicians in our service to humanity if we did not feel there was a greater life beyond. Helpless as we may feel at the bedside of one approaching death, we must realize this change is no greater mystery or phenomenon than the beginning of life. Benjamin Harvey Hill, the great Georgia patriot and statesman, when approaching death from a disease which deprived him of speech, wrote the following:

"If a grain of corn will die and then rise again in so much beauty, why may not I die and then rise again in infinite beauty and life? How is the last a greater mystery than the first, and by as much as I exceed the grain of corn in this life, why may not I exceed it in the new life? How can we limit the power of Him who made the grain of corn and then made the same grain anew in such wonderful newness of life?"

Among those of our colleagues who have passed away within the last year, one was outstanding in his ability to give in written form and verbal expression his scientific thought and teachings in a literary style, distinguishing a great teacher and a most excellent physician. He loved his profession and his fellow man, and summarized his own personal and professional philosophy in his book on "Ideals of Modern Medicine," with the following:

"May I be strong with the weak, righteous with the wicked, wise with the foolish, honest with myself and kind to all men. . . . May I take injustice cheerfully, death hopefully, believe victory and defeat equally a part of the larger plan, and rise from both fresh for repeated conflicts. May I remember that I am heir to the same diseases as my patients, must meet the same death, pass with them beyond the river, and may I go with a smile."

Thus is a fine expression of the philosophy of Dr. Stewart Roberts, whose name I shall call with those who have passed away during the past year. Is it not the philosophy of all?

Anderson, Emmett Bernard, Americus, February 21, 1941, aged 49.

Askew, Pleasant Henry, Sr., Nashville, August 11, 1940, aged 68.

Barfield, Forrest Mullins, Atlanta, April 17, 1941, aged 50.

Binion, Willet W., Benevolence, August 13, 1940, aged 80.

Boynton, Charles Edward, Jr., Atlanta, September 25, 1940, aged 40.

Cochran, James S., Norcross, August 27, 1940, aged 62.

Crumbley, James Jernigan, Sylvester, February 17 1941, aged 54.

Edmondson, Henry Turner, Moultrie, January 18, 1941, aged 53.

Evans, Horace E., Perry, December 15, 1940 aged 56.

Evans, R. Earl, Milledgeville, July 18, 1940 aged 58.

Foster, Luke Irdel, Ellijay, December 10, 1940, aged 33.

Franklin, Virgil Eugene, Graymont, November 13, 1940, aged 70.

Gausemel, Selmer Dean, Atlanta, January 18, 1941, aged 49.

Gewinner, Napoleon Gustavas, Macon, August 19, 1940, aged 83.

Griffith, Charles Floyd, Griffin, January 1, 1941, aged 56.

Hall, James Knox, Lyons, February 25, 1941, aged 63.

Memorial address before the Medical Association of Georgia, Macon, May 14, 1941.

Hancock, Thomas Hightower, Atlanta, November 17, 1940, aged 71.
Hutto, William Earl, Atlanta, August 31, 1940, aged 36.
Jackson, Jasper Lee, Manchester, June 2, 1940, aged 69.
Jones, Buford, B., Metter, June 26, 1940, aged 66.
Jones, Randolph D., Reidsville March 28 1940, aged 63.
Kemp, William M., Marietta, July 28, 1940, aged 78.
Kennedy, Bert Luther, Dalton, October 17, 1940, aged 60.
Kennon, Benning M., McRae, June 29, 1940, aged 78.
Kicklighter, Raymond Braxton, Glennville, October 29, 1940, aged 46.
Lewis, Albert W., Atlanta, May 13, 1940, aged 29.
Lightner, Lester Lance, Ideal, April 12 1940, aged 57.
Lott, Walter H., Monroe, January 9, 1941 aged 60.
Luke, David P., Camilla, September 14, 1940, aged 54.
McCurdy, Edward Colfax, Shellman, June 2, 1940, aged 71.
Moon, Pleasant Leonidas, Atlanta, September 22, 1940, aged 71.
Moran, Owen F., Milledgeville, October 31, 1940, aged 74.
Murray, George Massalon, Atlanta, September 14, 1940, aged 66.
Otwell, James A., Cumming, January 24, 1941, aged 58.
Palmour, William A., Gainesville, February 1, 1941, aged 75.
Parramore, William Van Vorst, Cochran, November 27, 1940, aged 56.
Pickett, Clarence Ernest, Richland, April 26, 1940, aged 70.
Ridgeway, George T., Royston, May 12, 1940, aged 69.
Roberts, Stewart Ralph, Atlanta, April 14, 1941, aged 62.
Robinson, Hugo, Albany January 8, 1941, aged 86.
Scott, Wilbur Moate, Milledgeville, October 31, 1940, aged 50.
Seawright, Eugene Chester, Fayetteville, September 2, 1940, aged 59.
Shamblin, Benjamin F., Lyerly, May 20, 1940, aged 81.
Terry, Huston B., Acworth, March 18, 1941, aged 65.
Tolleson, Henry Madison, Eastman, Septemher 1, 1940, aged 38.
Walker, Obie Byron, Bowman, February 5, 1941, aged 67.
Woods, Charles Jefferson, Macon, Novemher 6, 1940, aged 60.
Wright, John Coskery, Augusta, August 22, 1940, aged 57.
Williams, L. A., Abbeville, May 14, 1941, aged 75.

Finally, the list of those just read who have passed away during the year shows a variation of age from 29 to that venerable period of life of more than four score years. Whether in youth, middle life or old age, the passing of a physician brings to us the knowledge of the appreciation in which our profession is regarded among our people. Then let us live that when we approach the end of our journey, we can hope there is a place for the spirit of the good doctor in the great hereafter.

AWARDS

At the Scientific Session of the Annual Convention of the Medical Association of Georgia, many instructive papers were presented by able essayists. The Committee on Awards is requesting those essayists who desire to present their essays in competition for the prizes controlled by the Committee, to send in these to the Committee before Jan. 1, 1942. It will be necessary to submit five copies of each essay.

The prizes for which one may compete are:

The Crawford W. Long Memorial Prize, for the best essay containing some original work.

The Hookworm Prize, given for the best work of the year on hookworm.

The Hardman Loving Cup for one who has done outstanding work in the field of medicine.

Will the various essayists take notice of this request and let the Committee have their essays?

WM. R. DANCY, M.D., Chairman
Awards Committee.

SYPHILIS TRANSMITTED BY KISSING

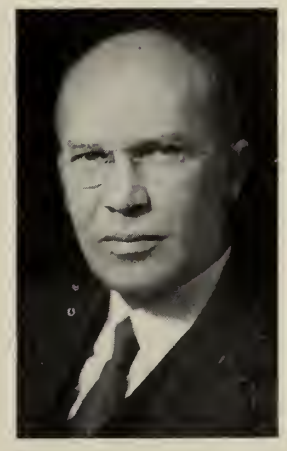
Syphillis was transmitted to five of eleven members of a family by means of kissing, Gradie R. Rowntree, M.D., and James Robert Hendon, M.D., Louisville, Ky., report in *The Journal of the American Medical Association* for July 13. The original familial infection was from an outside source—through kissing.

The authors state that physicians should be more suspicious of all lesions which might possibly be syphilitic. Two of their patients, they say, had previously been to physicians who made a diagnosis of lip impetigo in one and trench mouth in the other. Only good fortune saved the entire family from acquiring the disease, as they are all affectionate people.

EXPLAINS THE TERM "MUSCLE BOUND"

Explaining the term "muscle bound," *Hygeia, The Health Magazine* says that it is a descriptive but not a scientific term "popularly applied to an abnormal muscular development which may restrict quick and supple movements, especially of the arms and shoulders. When a muscle is used a great deal, it tends to become shorter and hence to produce a strong pull on weaker sets of opposing muscles, causing in certain cases some deformity. For example, the large muscles on the front of the chest may be so overdeveloped as to pull so strongly against the weaker muscles of the upper back that a 'round shouldered' condition may develop."

THE PRESIDENT'S PAGE



December 7, 1941. This morning was bright and clear. The water in our bird bath on the lawn was frozen and there was a slight breeze, but the sunshine was warm and pleasant. The morning's work was long and heavy but so interesting that it was not tiresome.

Sunday dinner was just finished and we were looking over the Sunday papers when like a bolt out of a clear sky we heard "The Japs have bombed Hawaii"—and later "Many casualties reported." Our world is changed. There is a difference between "A State of Emergency" and "War." We all feel it and know it. We must and we will win this war, cost what it may. We are free men and we "ne'er shall be slaves." This good earth of America is ours and we shall forever defend it. We belong to it and it belongs to us, and ours to eternity.

The Medical Association of Georgia and every member, collectively and individually, will do everything possible in every way possible to complete this unsought and unwelcome task at the earliest practicable time, so that we may again return to "the pursuit of happiness."

Yes, December 7, 1941, will long be remembered as the day on which destiny called and we were not found wanting.

Allen H. Bunce, M.D.

THE JOURNAL
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MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Association of Georgia
478 Peachtree Street, N. E., Atlanta, Ga.
DECEMBER, 1941

THE PURPURIC DISEASES

In spite of the recent advances in our knowledge of the mechanism of the coagulation of blood and of bleeding diseases in general, a patient who has generalized hemorrhages presents one of the most difficult diagnostic problems to the physician. In the purpuric disorders bleeding may occur in practically any tissue; thus, there may be multiple hemorrhages in and beneath the skin, excessive uterine bleeding, bleeding into the joints, into the mesentery, or into one or more of the more vital structures, including the kidneys and the brain. Many patients present various combinations of these different types.

When the physician is confronted with a purpuric problem, it is important that there be careful laboratory studies and the exact defect ascertained, since only after this is done can treatment be instituted on a sound and scientific basis.

All of the purpuric disorders may be classified in two large groups, the thrombocytopenic and the non-thrombocytopenic, and it is important that the disorder be placed in either of these two classifications. This can be done only by careful study of the blood platelets. There are several methods for estimation of blood platelets, including the counting of these cellular bodies in the counting chamber and their estimation on the stained smear. It is not necessary to know the exact number of platelets, but if one can be reasonably certain that they are definitely low or below normal, then a purpuric disorder can be classified in the thrombocytopenic group. The exact level to which platelets must fall before bleeding occurs varies with different people. The bleeding threshold is generally stated to be around 50,000 platelets per cubic millimeter.

Once a purpuric disorder is definitely determined to be on a thrombocytopenic basis, the next question that arises is the possible cause for this. One of the more common types is that known as idiopathic thrombocytopenic purpura for which splenectomy is the treatment of choice. Then, it must be borne in mind that the platelets are often decreased as a result of the administration of drugs. Among these are the arsphenamine group and some of the barbituric analgesic agents, notably one known as sedormid. Also it has recently been shown that an occasional patient may show platelet depression when taking some of the sulfonamide drugs. If drugs can be eliminated as a cause of the platelet deficiency, then the deficiency is probably in the bone marrow as seen in such diseases as aplastic anemia and aleukemic leukemia. It should be emphasized that any type of thrombocytopenic purpura does not respond to treatment with the usual hemostatic agents that are employed for purpuric disorders.

If thrombocytopenia cannot be established in a purpuric patient, then the disease must be classified as a non-thrombocytopenic purpura and in this group are two major types. First, those that are characterized by a long coagulation time, and secondly, those that are on the basis of capillary weakness.

There are very few purpuric diseases characterized by prolonged coagulation time. Among these is hemophilia, for which there is no adequate and satisfactory treatment today, with the exception of multiple blood transfusions; and secondly, the disorders characterized by diminished prothrombin because of a lack of vitamin K. These include some of the hemorrhagic states of the newborn, some instances of obstructive jaundice, diseases of the intestinal tract in which there is impairment of absorption, and far advanced diseases of the liver in which there is failure to convert vitamin K to prothrombin.

If the coagulation factors and the platelets of the blood are normal, then by a process of exclusion the purpuric patient must be classified as one of those caused by capillary weakness. The causes of this appear to be multiple, and include many

of the infectious diseases. But perhaps one of the most common causes is a lack of vitamin C. Therefore, such purpuric disorders should first be treated with cevitamic acid either by mouth or by injection and careful attention paid to removal of foci of infection.

It should be emphasized that most hemostatic agents that are used widely by physicians in cases of purpuric disorders are without value. The only two agents of definitely proved value include vitamin K, but only in those conditions in which it is indicated, and vitamin C in purpura of capillary weakness. All other hemostatic agents, including snake venom, are based on more speculation than fact. Blood transfusions are always useful in control of purpuric diseases, regardless of the type of bleeding. This is particularly true of the emergency group. It is not known exactly what agents are provided in fresh blood.

The most important thing about the management of any purpuric disorder is to accurately classify the disease by determining the existing defect if possible and the most important thing of all, to know whether or not the bleeding is occurring from a platelet deficiency. Without this knowledge, intelligent treatment is impossible.

Roy R. Kracke, M.D.

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The Journal *would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.*

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HIGHLIGHTS OF PROGRESS IN PUBLIC HEALTH NURSING IN GEORGIA

MRS. EUDELLE TRAWICK, R.N.
Sparta
Director, Georgia State Organization for Public Health Nursing

The first record of any law pertaining to public health in Georgia was passed in 1732. In 1875 the Legislature passed an act creating a State Board of Health. The first meeting of the State Board of Health was held in Atlanta in June, 1875. No public health nursing was begun until 1904. To a King's Daughters' circle in the City of Savannah goes the honor of inaugurating this service. Even today the same circle contributes to the visiting nurse services of that city. In the years that followed the services were gradually increased, but progress was slow. Only cities and counties which had departments of public health had public health nursing services, and in the depression years many departments were compelled to curtail nursing staffs.

In 1934 the State Department of Public Health became the sponsor of a statewide WPA nursing project, through which public health nurses were provided for practically every county in the State; at its peak the project employed over 200 nurses. Through the services of the nurses on this project the people of Georgia came to appreciate the value of public health nursing service as a means through which disease and death could often be prevented.

In 1936, through grants of money to states by the government under the Social Security Act, a beginning was made in the way of a permanent public health nursing service in Georgia. A division of public health nursing was established in the State Department of Public Health and there has been a steady extension of nursing service in every field of activity. Today 113 counties have one or more public health nurses, and employ a total of 277 nurses. A census of public health nurses taken in January, 1941, showed an additional 108 nurses who were employed in unofficial health agencies. In addition to this group, there are on the staff of the State Department of Health, a Director of Public Health Nursing, an Associate Director, a Consultant in Maternal and Child Hygiene, and Instructor in Public Health Nursing, six Regional Consultant Nurses and six Regional Reserve nurses, indicating that today some 400 nurses in the State are at work in the public health field.

Not only have greater gains been made in the growth of the number of nurses during the past five years, but much has been accomplished for the education of this group for the special field of public health. Training has been provided for 260 nurses by the Georgia Department of Public Health from funds made available for that purpose through state and social security funds.

The State Organization for Public Health Nursing was organized in 1925, in Augusta, with a small group of thirty charter members. Today 50 per cent of Georgia public health nurses enjoy its membership. The objectives are as follows:

1. To stimulate the responsibility for the health of the community by furthering the establishment and extension of public health nursing and the education of nurses in public health.

2. To develop standards and technics in public health nursing throughout the State.

3. To facilitate efficient cooperation between nurses, health officials, boards of trustees, and other agencies and persons interested in public health.

At the present time there is a shortage of qualified public health nurses in Georgia. If the ever increasing demand for public health nursing service throughout Georgia is to be met, many additional nurses will have to be recruited for this type of service.

NEWS ITEM

THE GEORGIA MEDICAL SOCIETY, Savannah, met on November 11. Dr. L. J. Rabhan read a paper, *Stricture of the Female Ureter;* discussed by Dr. A. J. Kelley and Dr. H. Y. Righton.

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Hamm, Mrs. W. G., 2877 Habersham Rd., N. W., Atlanta
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Hauck, Mrs. A. E., 1045 Oxford Rd., N. E., Atlanta
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Holloway, Mrs. Geo. A., 524 Manor Ridge Dr., N. W., Atlanta
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Carswell, Mrs. H. J., 311 State St., Waycross
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Ferrell, Mrs. T. J., St. Mary Drive, Waycross
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Hafford, Mrs. W. G., 229 Riverside Drive, Waycross
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Mixon, Mrs. W. D., 619 Nichols St., Waycross
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Penland, Mrs. John E., 912 Elizabeth St., Waycross
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Reavis, Mrs. W. F., Satilla Blvd., Waycross
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Smith, Mrs. Leo, 307 Kollock St., Waycross
Stephens, Mrs. C. M., 312 Hill St., Waycross
Walker, Mrs. J. L. (honorary), 502 Gilmore St., Waycross
Walker, Mrs. Robt. (honorary), 502 Gilmore St., Waycross
Walden, Mrs. K. C., 7070 Haines Ave., Waycross
Witmer, Mrs. Chester A., 501 Gilmore St., Waycross

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Cabaniss, Mrs. W. H., Jefferson Road, Athens
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Talmadge, Mrs. Sam M., 1257 Prince Ave., Athens
Whitley, Mrs. L. L., Crawford
Whelchel, Mrs. Guy O., 138 Henderson Ave., Athens

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Kelly, Mrs. Lombard G., 2131 Gardner St., Augusta
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NEWS ITEM

THE FULTON COUNTY MEDICAL SOCIETY met in the Nurses' Home of the Crawford W. Long Memorial Hospital, Atlanta, November 17. The program consisted of a symposium—*Relation of Social Welfare Work to the Practice of Medicine.* The members of the "Social Planning Council" discussed *What We Have Discovered About Welfare and Health.* The Family Welfare Society and the Child Welfare Association of DeKalb and Fulton counties discussed *Do We Need the Doctor.* Contributors to the November 17 Bulletin were: Dr. Thos. J. Collier, Dr. Thomas L. Tidmore, Dr. Hayward S. Phillips, Dr. O. O. Fanning, Dr. Linus J. Miller, Dr. Stephen T. Brown, Dr. S. Ross Brown, Dr. H. Cliff Sauls.

MEDICAL ASSOCIATION OF GEORGIA

Ninety-Third Annual Session

Augusta

April 28, 29, 30, and May 1, 1942

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Revision of Pharmacopeia of U. S.

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South Carolina: G. Lombard Kelly, Augusta; V. P. Sydenstricker, Augusta; Grady N. Coker, Canton.

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Fourth District: J. A. Corry, Barnesville, Sept. 1, 1943.
Fifth District: Mr. Robt. F. Maddox, Atlanta, Sept. 1, 1942.
Sixth District: C. L. Ridley, Macon, Sept. 1, 1944.
Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1944.
Eighth District: Henry W. Clements, Adel, Sept. 1, 1944.
Ninth District: Robt. L. Rogers, Gainesville, Sept. 1, 1945.
Tenth District: D. N. Thompson, Elberton, Sept. 1, 1943.

*Nominated by their respective district medical societies and appointed for six year terms.

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*Dental Association**

W. K. White, Savannah, Sept. 1, 1945.
J. G. Williams, Atlanta, Sept. 1, 1945.

*Nominated by the Georgia Dental Association.

*Pharmaceutical Association**

M. D. Hodges, Marietta, Sept. 1, 1941.
W. T. Edwards, Augusta, Sept. 1, 1941.

*Nominated by the Georgia Pharmaceutical Association.

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of the
Medical Association of Georgia
for 1941

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Cox, C. G., Milledgeville
Echols, Geo. L., Hardwick
Fulghum, C. B., Milledgeville
Garrard, J. 1., Hardwick
Howard, C. L., Milledgeville
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Long, Harold W., Eastman
Longino, L. P., Hardwick
Mays, J. R. S., 805 Pitts St., Alexandria, Va.
Stewart, J. Benham, Duval County Hospital, Jacksonville, Fla.
Walker, E. Y., Milledgeville
Waller, C. P., Milledgeville
Woods, O. C., Milledgeville

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Lowry, T., Cartersville
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Mulkey, A. P., Millen
Mulkey, Q. A., Millen
Thompson, C., Millen

LAMAR COUNTY

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Bell, John A., Jr., Dublin
Cheek, O. H., Dublin
Claxton, E. B., Dublin
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Ferrell, R. G., Jr., Dublin
Hicks, Chas. L., Dublin
Lanier, L. I., Soperton
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Adams, Thos. M., Montezuma
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Greer, C. A., Oglethorpe (deceased)
Liggin, Samuel B., Montezuma (Hon.)
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Riley, B. F., Jr., Thomson
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Johnson, J. A., Manchester
Kirkland, W. P., Manchester
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Alternate Delegate.....Mobley, J. W.

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Brim, J. C., Pelham
Burns, M. M., Pelham
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Reid, C. W., Pelham
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Johnson, J. H., Murrah Bldg., Columbus
Jones, Wm. R., Doctors Bldg., Columbus
Jordan, Willis P., Doctors Bldg., Columbus
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McWhorter, M. R., 313 Fourteenth St., Columbus
Moses, Alice, 1413 Second Ave., Columbus
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Threatte, Bruce, 204 Eleventh St., Columbus
Tillery, Bert, Swift Bldg., Columbus
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Walker, John E., Masonic Temple, Columbus
Willis, J. N., Columbus City Hospital, Columbus
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Gary, Loren, Georgetown
Harper, T. F., Coleman
Kenyon, S. P., Dawson
Lamar, Lucius, Dawson
Lewis, J. H., Dawson
Martin, F. M., Shellman
Martin, Robert B., III, Ft. Oglethorpe
Martin, Walter D., Shellman
Massengale, Leonard R., Lumpkin
Patterson, J. C., Cuthbert
Rogers, F. S., Coleman
Saurez, Annette McD., Cuthbert (Hon.)
Shelley, W. P., Albany (Hon.)
Sims, A. R., Richland
Tidmore, Joseph C., Dawson

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Delegate ..... Sherman, J. H.
Delegate ..... McGahee, R. C.
Alternate Delegate ..... Roule, Victor
Alternate Delegate ..... Lewis, S. J.

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Briggs, A. P., University Hospital, Augusta
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Burdashaw, Wm. J., 718 Monte Sano Ave., Augusta
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Chaney, R. H., 1001 Greene St., Augusta
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Corbitt, Melvis O., 1309 Holden St., Augusta
Cranston, W. J., Sou. Finance Bldg., Augusta
Davidson, A. A., 1116 Greene St., Augusta
Ginsburg, S. T., Linwood Reserve, Augusta
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Goodwin, T. W., 1345 Greene St., Augusta
Gray, J. D., 1345 Greene St., Augusta
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Harrell, H. P., Sou. Finance Bldg., Augusta
Henry, C. G., Sou. Finance Bldg., Augusta
Hensley, E. A., Gibson
Hitchcock, J. P., 561 Telfair St., Augusta
Holmes, L. P., Sou. Finance Bldg., Augusta
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Kilpatrick, A. J., 407 Seventh St., Augusta
Kilpatrick, Chas. M., 1345 Greene St., Augusta
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Leonard, Robert B., 1001 Greene St., Augusta
Levy, Jack Heymann, Mount Sinai Hospital, New York City
Levy, M. S., Sou. Finance Bldg., Augusta
Lewis, S. J., Sou. Finance Bldg., Augusta
Matthews, W. E., Sou. Finance Bldg., Augusta
May, E. R., Lincolnton
McDaniel, J. Z., 1345 Greene St. Augusta
McGahee, R. C., 1345 Greene St., Augusta
Mealing, H. G., 3 Forest Ave., North Augusta, S. C.
Mettler, F. A., University Hospital, Augusta
Mountain, G. W., 2612 Walton Way, Augusta
Mulherin, Chas. M., 1211 Greene St., Augusta
Mulherin, F. X., 1001 Greene St., Augusta
Mulherin, Philip A., 1211 Greene St., Augusta
Mulherin, Wm. A., 1001 Greene St., Augusta
Murphey, Eugene E., 432 Telfair St., Augusta
Norvell, J. T., 1240 Greene St., Augusta
Oden, Jno. W., Gracewood
Philpot, W. K., 1345 Greene St., Augusta
Phinizy, Irvine, Sou. Finance Bldg., Augusta
Phinizy, Thomas, 501 Greene St., Augusta
Price, W. T., Montgomery Bldg., Augusta
Pund, Edgar R., University of Ga. School of Medicine, Augusta
Rhodes, R. L., Sou. Finance Bldg., Augusta
Roberts, W. H., 828 Greene St., Augusta
Robertson, J. Righton, 1345 Greene St., Augusta
Roule, J. Victor, Sou. Finance Bldg., Augusta
Sanderson, E. S., University of Ga. School of Medicine, Augusta
Scharnitzky, E. O., 1262 Greene St., Augusta
Sherman, John H., 1122 Johns Road, Augusta
Silver, D. M., Sou. Finance Bldg., Augusta
Sydenstricker, V. P., University Hospital, Augusta
Tannenbaum, S., Sou. Finance Bldg., Augusta
Templeton, C. M., 112 West 8th St., Augusta
Tessier, Claude E., Masonic Temple, Augusta
Thomas, D. R., Jr., Sou. Finance Bldg., Augusta
Thurmond, A. G., 1345 Greene St., Augusta
Thurmond, J. W., 407 Seventh St., Augusta
Timmons, C. C., 415 Milledge Road, Augusta
Todd, L. N., University Hospital, Augusta
Torpin, Richard, University Hospital, Augusta
Traylor, Geo. A., 2311 Kings Way, Augusta (deceased)
Volpitto, P. P., University Hospital, Augusta
Ward, C. D., 1345 Greene St., Augusta
Weeks, J. L., Harlem (Hon.)
Wilcox, E. A., 1345 Greene St., Augusta
Williams, W. J., Sou. Finance Bldg., Augusta
Wolfe, Dave M., 1114 Stillwood Drive, Atlanta

Woodbury, Robert A., Medical College, Augusta
Woods, L. C., Veterans' Administration Facility, Augusta
Wright, Geo. W., Sou. Finance Bldg., Augusta
Wright, P. B., 1345 Greene St., Augusta

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Bird, Frank, Valdosta
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Farber, M. E., G.S.C.W., Valdosta
Giddens, C. C., Valdosta
Hutchinson, L. R., Adel
Johnson, A. M., Valdosta
Little, A. G., Valdosta
Mixson, J. F., Valdosta
Mixson, Joyce F., Jr., Valdosta
Oliphant, Jones B., Adel
Quarterman, P. C., Valdosta
Quillian, E. P., Clyattville
Saunders, A. F., Valdosta
Scruggs, Claude G., Clyattville
Smith, E. J., Hahira
Smith, J. R., Hahira
Smith, Louis, Lakeland
Smith, Tom H., Valdosta
Thomas, F. H., Valdosta
Thompson, E. F., Valdosta
Turner, W. W., Nashville
Waugh, William, Nashville
Williams, T. C., Valdosta

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Griggs, H. E., Conyers

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Frye, A. H., Griffin
Grubbs, J. H., Molena
Hawkins, T. I., Griffin
Head, D. L., Zebulon
Head, M. M., Zebulon
Howard, I. B., Williamson
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Leslie, J. T., Griffin
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Johnson, J. A., Andrews, S. C.
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Welton, Felix B., Toccoa
Wilson, L. W., P. O. Box 7604, Kansas City, Mo.

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Officers

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Delegate.....Bryan, S. H.
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Bryan, S. H., Reynolds
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Officers

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Persall, John T., Jr., McRae
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Jones, R. E., Tifton
LeRoy, Albert G., Tifton
Little, Tom F., Tifton
Pickett, F. B., Ty Ty
Pittman, Carl S., Tifton
Shaw, M. F., Omega
Smith, W. T., Tifton
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Gross, O. S., Vidalia
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Lane, J. E., LaGrange
Lee, R. O., LaGrange
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O'Neal, Rance, West Point
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Phillips, W. P., LaGrange
Ridley, F. M., LaGrange
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Williams, Virgil G., Grantville

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Rawlins, R. D., Rebecca (Hon.)
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Story, W. L., Ashburn
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Bridges, B. L., Thomaston
Carter, R. L., Thomaston
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NEWS ITEMS

THE STAFF MEETING OF THE CRAWFORD W. LONG MEMORIAL HOSPITAL, Atlanta, was held on November 13. Dr. Geo. A. Williams reported a case, *Acute Salpingitis vs. Appendicitis, a Diagnostic Problem.*

DR. LEON E. BRAWNER announces the re-opening of his office in Suite 701 Medical Arts Building, Atlanta. Practice will be limited to diseases of the ear, nose and throat.

THE MEETING OF THE STAFF OF GRADY HOSPITAL, Atlanta, was held on November 18. Dr. Roy R. Kracke discussed *The Application of the Electron Microscope to the Study of Virus and Other Diseases.*

THE SIXTH DISTRICT MEDICAL SOCIETY met in Ridley Hall, Macon, December 4. Dr. J. R. B. Branch, Macon, read a paper entitled *The Treatment of Ovarian Failure;* Dr. Clarence W. Hullinger, Camp Wheeler, *The Fitness of Men Inducted Into the United States Army;* Dr. John A. Egan, Cochran Field, *Examination of Prospective Flying Cadets;* Dr. R. M. Reifler, Macon. *Drug Rashes—Illustrated with Color Slides;* other speakers included Dr. Allen H. Bunce, Atlanta, and Dr. J. A. Redfearn, Albany, president and president-elect of the Medical Association of Georgia, respectively.

THE FOURTH ANNUAL CONGRESS ON INDUSTRIAL HEALTH, sponsored by the American Medical Association, will be held at the Palmer House, Chicago, January 12-13. The meetings will be open to physicians and others interested in industrial health.

THE VISITING STAFF OF GRADY HOSPITAL, Atlanta, met on December 9. Dr. Ralph Mosteller reported two cases of *Rheumatic Fever.*

THE ACADEMY OF MEDICINE built by the Fulton County Medical Society was dedicated December 15. It is located at 875 West Peachtree Street, N. E., Atlanta. Dr. Fred W. Rankin, Lexington, Kentucky, president-elect of the American Medical Association, was an invited guest and speaker. Officers elected for the ensuing year were: Dr. Major F. Fowler, president; Dr. Geo. W. Fuller, president-elect; Dr. Don F. Cathcart, vice president; Dr. Eustace A. Allen, secretary-treasurer; Dr. J. Harry Rogers, member of the Board of Trustees; Dr. Mark S. Dougherty, Jr., and Dr. Vernon E. Powell, members of the Judicial Council. Contributors to the Fulton County Medical Society Bulletin, December 15 number included: Dr. Howard Hailey, Dr. Jeff L. Richardson, Dr. Frank K. Boland, Dr. Major F. Fowler, Dr. W. W. Daniel, Dr. Jas. E. Jaullin and Dr. W. A. Selman.

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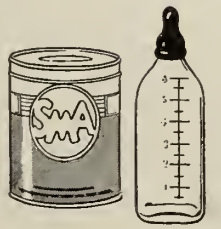

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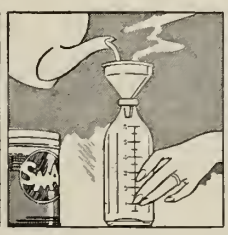

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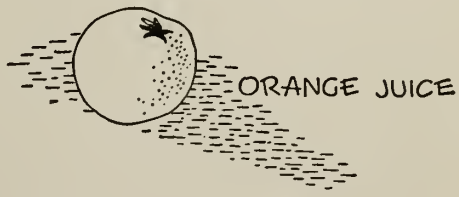

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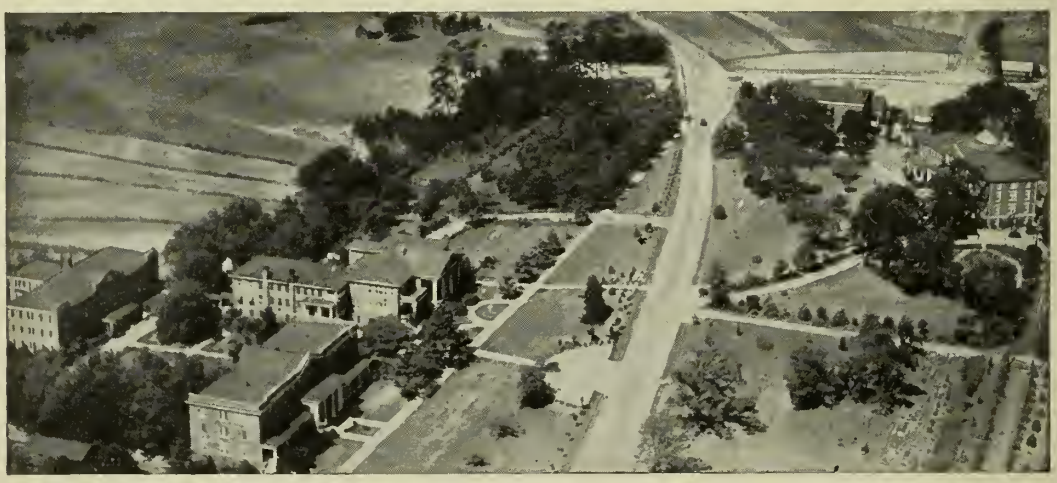

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